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Committee on division of the people's income

Report

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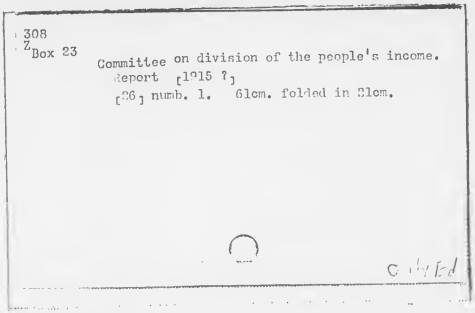

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REPORT OF COMMITTEE ON DIVISION OF THE PEOPLE'S INCOME

Problems of distribution present the most perplexing and difficult phase of modern economic discussion. Some writers are concerned chiefly with the principles which underlie the apportionment to capital and labor of their respective shares in the product of industry. Others are concerned with the principles which they believe ought to govern such distribution. It has been mainly the latter group who have stimulated a discussion of the actual facts of distribution, for it has been their interest to demonstrate from their point of view the injustice of modern distribution, in order that they might make a more effective contrast with the "just" distribution which they hope some day to usher in.

The assertion that capital absorbs the lion's share of the joint product of labor and capital has been spread far and wide by writers and speakers on behalf of Socialism. It has seemingly gained currency as one of the commonplaces of economic truth and is unthinkingly repeated by many who are disposed to be severe towards the existing order of things.

For the purpose of thoroughly sifting these assertions and ascertaining how far they rest upon the evidence of the facts, the present committee has been formed. Its purpose is to examine into the following questions:

1. What evidence exists to-day which shows the returns of capital and labor respectively from their joint product?

2. What evidence exists which can throw light upon changes which may have occurred in recent times in the respective shares of capital and labor?

In the discussion of this matter in the United States the appeal is generally made to the figures of the census. With certain unavoidable limitations, the publications of the United States Census give the clearest view of industry on a large scale that is available anywhere, and competent foreign students of economic questions testify to its superiority over the census work of other nations. Yet while we have in the census a great reservoir of statistics competently collected and assembled and broadly comprehensive of the great fields of industrial activity, the magnitude of its field compels severe elimination of details. It does not pretend to furnish a combined balance sheet of all industrial and commercial operations or to tell the costs of production and the profits of enterprise, nor can it properly be criticised for the omission. A bird's-eye view of the industries of a continent must lack in microscopic sharpness of detail. The two are incompatible and cannot be expressed on the same printed page.

THE DIVISION OF THE NET PRODUCT OF MANUFACTURES

What is the evidence of the census on this matter? Confining ourselves for the present to the latest figures on manufactures, those of 1909, we may make the following rearrangement of the census figures, adding our own estimate for the depreciation of capital:

Gross Product		$20,672,052,000
(Less) Cost of Materials		12,142,791,000
Added Value		$8,529,261,000
(Less) Miscellaneous Expenses:		
Rent of Factory	$106,574,000	
Taxes, Internal Revenue	263,012,000	
Taxes, Other	88,297,000	
Contract Work	178,646,000	
All Other*	1,309,157,000	$1,945,686,000
Net Product Divisible Between Capital and Labor		$6,583,575,000
(Less) Payments for Labor:		
Wages	$3,427,038,000	
Salaries	938,575,000	4,365,613,000
Total Return Attributable to Capital		$2,217,962,000
(Less) Depreciation—5% on a Capital of $18,428,270,000		921,414,000
Interest and Profits		$1,296,548,000

	Percentages
Labor Cost Compared with Added Value	51.2%
Product Divisible between Capital and Labor	100%
Labor Cost	66.3%
Depreciation	14.0%
Interest and Profits	19.7%

* All other includes rent of offices and buildings other than factory or works, rent of machinery, royalties, use of patents, insurance, ordinary repairs of buildings and machinery, advertising, traveling expenses and all other sundry expenses.

The figures here given enable us to establish certain relations between payment for labor and the product of manufacturing industry. Such a relationship could be established with the gross product of industry whose component parts would appear to be cost of materials, miscellaneous expenses, labor, and the remainder, which must be assumed to be the return upon capital. The only objection to this method of calculation is that it introduces a considerable number of elements into the calculation and by so doing obscures the relation between the share of labor and of capital which is the question of fundamental interest.

The remainder which results from subtracting from the gross value of the products the cost of materials, is designated by the census as the value added by manufacturing, this value representing the contribution which the process of manufacture has made to the original materials which entered into it. The component parts of this aggregate are labor, the miscellaneous expenses and the return to capital, labor being represented by 51.2 per cent of the added value. This computation is made here as it appears in our tables, because it not infrequently appears in the literature of the subject, which too often takes no note of the element of miscellaneous expenses.

It must, however, be clear that the miscellaneous expenses, which in the aggregate are considerable, cannot be considered from the point of view of the individual manufacturer or from the point of view of manufacturing as a whole, as payments either to labor or to capital.

Such expenses are comparable to the expenditures for materials, since manufacture could not be carried on without either of these outlays. In order, therefore, to ascertain the product which is divisible between capital and labor, it seems proper to deduct from the added value the outlay for miscellaneous expenses. This new result, which must be called the net product of labor and capital, is divisible between these two factors only. As shown in the table, labor costs constitute 66.3 per cent, or nearly two-thirds of this amount.

The remainder is attributable to capital, but this is not equivalent to saying that it represents the employer's share in the joint product. It is not wholly a surplus which the capitalist can employ for his own use without impairing the integrity of the business. A portion of it must be used to keep his capital intact, for without such expenditure the net product of industry would soon diminish. The census figures do not show an allowance for depreciation and in so far they fail to give a complete showing of all of the costs which enter into manufacturing. The census volumes recognize the importance of this element, though confessing an inability to ascertain its exact amount. Without such an allowance for depreciation the efficiency of any plant would soon diminish and sooner or later it would tumble down. While working capital does not depreciate, it is usually reckoned as to fixed capital that the actual depreciation is 1.5 per cent on buildings, 10 per cent on machinery, and 20 per cent on tools. In the absence of any statistics as to the relative proportions of these classes of manufacturing capital it is necessary to fix an arbitrary rate for depreciation. It is believed that the arguments for and against a rate of 5 per cent per annum as a trustworthy average are about equally balanced, and this figure is accordingly used in the foregoing statement and is reckoned on the reported capital of over $18,000,000,000.[1] It will

(1) The census figures with regard to capital do not possess the same degree of accuracy as the other figures published in the report on Manufactures. The difficulty of obtaining accurate returns on capital has been mentioned at each census and in collecting such figures as have been published, the census authorities have been complying with provisions of the law for which it is plain that they have had little sympathy (Thirteenth Census, 1910, Vol. VIII, Manufactures, page 21). Since, however, the figures are all we have, they are given in the text for what they are worth. The figure here given for interest and profits amounts, it may be noted, to 7.2 per cent of the reported capital of upwards of $18,000,000,000. In comparison with these figures it may be noted that for the federal corporation excise and income tax of 1913 there were reported 96,113 industrial and manufacturing corporations, the census having enumerated in 1909–09,501 such corporations. The corporations taxed in 1913 had a capital stock of $26,553,000,000, and a bonded and other indebtedness of $8,685,000,000, and a net income of $2,027,000,000. (Report Commissioner of Internal Revenue, 1914, p. 103.) If we had information in regard to the interest paid on the bonded and other indebtedness, we could add this to the net income to obtain a figure approximately equivalent to that representing interest and profits as estimated in our table. If the interest on bonded and other indebtedness be figured at 6 per cent and the same added to the net income, and this sum divided by the total capital—that is, capital stock and indebtedness—the resulting rate, which includes interest and profits is 7.2 per cent, exactly identical with the calculation which results from the census figures. The identity of these calculations seems to establish the approximate accuracy of the census figures for the capital invested in manufacturing, at least in a degree which justifies their use in an estimate necessarily so rough as this calculated allowance for depreciation.

be noted that after eliminating depreciation the share in the joint product of labor and capital which goes to the latter in the form of interest and profits amounts to a little less than 20 per cent. If these calculations be correct, therefore, it would appear that of the total product which is divisible between capital and labor, two-thirds goes to labor, as its earnings, one-fifth goes to capital as earnings, and the remainder goes to capital for its maintenance.

The calculations thus far made relate to a division of the joint product of labor and capital between the two elements, without any reference to the share which it contributes to the work of production. Since labor is reckoned in terms of workers and capital in terms of dollars, there is no common measure. None the less an interest attaches to the comparison between the average earnings of the individual worker and the comparison of earnings to capital. In the year 1909 there were employed in manufacturing industries of the United States 6,615,046 workers earning wages, and 790,267 workers receiving salaries, making a total of all employees of 7,405,313. Dividing the total labor cost as given above by these figures, we find that the average remuneration of labor per individual employee was $590. If the aggregate return to capital of $2,217,962,000 be compared with the reported capital, we find that the gross return is equivalent to 12.2 per cent. Out of this gross return an allowance must be made for depreciation, which, being estimated at 5 per cent of the capital, leaves 7.2 per cent for interest and profits. Since borrowed capital which is employed in manufacture must bear interest, it is figured that all capital, whether borrowed or not, is entitled to interest. It is probably putting the interest allowance rather low if we assume that capital can be borrowed for manufacturing purposes at 5 per cent. On such an assumption we have remaining as distinct profits to the manufacturer a sum of money equivalent to 2.2 per cent of the capital employed in the manufacture. If the interest rate were to be computed at less than 5 per cent, the profits would increase correspondingly; but if, as it seems not unlikely it should be, the interest were computed at more than 5 per cent, the percentage of profits would be lessened.

The correctness of these calculations might be questioned by those who emphasize the fact that certain large manufacturing concerns are notoriously profitable. "How," it will be asked for instance, "does Henry Ford pay such big wages out of such returns as this?" But the Ford factory does not and could not meet its present payroll out of such returns as this. The figures above do not represent the earnings and expenses per worker of the Ford factory or any other conspicuous industrial success. They are general averages for 268,491 plants, big and little, efficient and inefficient. Some are highly profitable, the majority fairly so, many struggling, some losing money. The automobile factory that was in the hands of a receiver in 1909 has the same relative influence on the census figures as Henry Ford's factory. Henry Ford did not begin to pay minimum wages approaching $5 a day until 1914, but in 1909 his business was prospering magnificently. That it was prosperous then and is increasingly prosperous now, no more proves all other automobile factories and all other manufacturing plants to be equally profitable than the Calumet and Hecla proves one copper mine to be as good as another. The men who are working in the Ford factory drew the richest prize that was ever distributed among such a large body of workers. Their employer saw years in advance of all others that the manufacturer who built a good $500 automobile would tap the real paystreak, while the man who built a good $5,000 automobile would do a strictly limited business. To foresight that amounted to genius, he added the quality of being one of the great industrial organizers of his day. He concentrated all his facilities on making one model which was to be the best and cheapest possible, and by large scale manufacture of a standardized product, he built up a volume of business which put his manufacturing and selling costs absolutely beyond the attainment of competition. If several of the pioneer automobile manufacturers had been Henry Fords, the result would have been to lower the price of the Ford automobile to the consumer instead of to raise the Ford wage schedule.

As it is, he got the start of the entire field and holds a position of practical monopoly.

The meaning of his profit-sharing system must not be under-estimated. It has made big profits seem criminal unless accompanied by generous wages. But that the extension of the same pay schedules to all other industries would mean widespread bankruptcy is evident to any man who understands how small is the average margin of profit. Automobile manufacturing is still in its bonanza stage. The 84,954 employees in 1909 added a value of $1,385 each to their materials, as against $1,259 added value per employee in the iron and steel industry and $1,152 for all factories. They received an average wage of $685 per annum, as against $726 in iron and steel (steel works and rolling mills).[1] Miscellaneous expenses for automobile manufacturing are only slightly higher than the average for similar industries, so that the margin of profit must be higher in automobile manufacturing than in the manufacture of staple goods. It must fall in due time, as competition grows, as grow it must, and as supply more nearly approximates to demand.

(1) Computed from figures published in Table 110, pages 514–523. Abstract of the Thirteenth Census (1910).

COMPARISON WITH OTHER ANALYSES OF THIS QUESTION

Comparison with other analyses of the same question will be interesting at this point. The late Edward Atkinson, about 1885, placed labor's share as high as 90 per cent. His conclusions were riddled by Frederick B. Hawley, who set the true division as approximately 65 per cent to labor and 35 per cent to capital.[1] This finding for the census figures of 1880 checks up closely with our figures for the 1900 and 1910 censuses before depreciation is taken into account, as will be seen above.[2]

(1) See *Quarterly Journal of Economics*, Vol. 2, page 362, page 450. Vol. 3, page 109, and *The Forum*, Vol. 3, page 488, Vol. 7, page 292, for articles by Messrs. Atkinson and Hawley growing out of the latter's review of Mr. Atkinson's book, "The Distribution of Products."

(2) Mr. Hawley wrote the chairman of this committee in October, 1914:

"Assuming the figures of Mr. Atkinson to be correct, they showed with the corrections I pointed out a percentage of 65 per cent for wages and 35 per cent for rent, interest and profits combined, but I would be the last to claim any close approximation to the truth for this result.

"If you will allow the suggestion, there are two aspects of the question—the economic and the social—which must be carefully distinguished. There is a very large and important class whose remuneration is (wholly or mainly) technically an economic wage (i. e., ministers, doctors, lawyers, public officers, and even business men, especially retail shopkeepers, etc.) who are not socially considered as belonging to the 'wage-earning' class. But neither economically, nor socially, can this remuneration be considered as constituting an element in rent, interest or profits. How this class is treated will, of course, profoundly affect the result of any attempt to ascertain how the total product is distributed. Of course, Mr. Atkinson overlooked this distribution.

"There are also practically insuperable difficulties in ascertaining the total of the industrial product. Everything must be figured at the price the final consumer pays—i. e., at retail prices. The value of services annually rendered—not only personal services but those rendered by property, such as shelter, transportation, for pleasure, amusements of all kinds that are paid for, etc., etc. Estimation of all these things can be hardly more than a guess. The above are only a few of the snares and pitfalls of the examination you propose to make."

The questions Mr. Hawley raises here are of great importance and interest as indicating the farthest limits of the inquiry upon which we have entered. The inquiry should be pushed to its conclusion, but the time allotted to the present investigation does not permit this.

Calculations somewhat similar to those which we have presented have been made by various writers, and their favored form of presentation is to divide the aggregates which were given in our first table by the whole number of employees (sometimes erroneously by wage-earners only) for the purpose of ascertaining the product per employee and making a direct comparison between this product and the average wage. This form of statement is particularly affected by those whose economic doctrines lead to the belief that the worker alone contributes value to the product. The statement that the product of industry is $1,152 per worker is frequently transposed in such writings to the form that each worker produces annually a product in the value of $1,152, and the subtle difference in the meaning of the two phrases oftentimes passes unnoticed. Since, however, much of this literature is based upon the product per worker, we may translate the figures which we have already given into this form of statement, as follows:

MANUFACTURING STATISTICS, 1909, PER EMPLOYEE

Value of Products		$2,792
Materials		1,640
Miscellaneous		263
Average Wage Salary		500
Depreciation (estimated)		124
Added Value		$1,152
Wage Salary to Added Value		51 2*/10
Net Industry Earnings (Added Value less Misc. Exp.)		$889
Wage Salary to Net Earnings		*66 4*/10
Remaining to Employer		33 6*/10
Depreciation	13 9*/10	
Interest and Profits	19 7*/10	

* The percentages calculated on figures per employee in this table differ in some instances in the first decimal from those calculated on the aggregate figures.

The "National Socialist Handbook No. 1," published in 1912 by the editors of the *National Socialist*, W. J. Ghent and Louis Koppelin, stated the "worker's share" of the product to be 41.6 per cent in 1899 and 40.1 per cent in 1909.(1) This is correct if manual laborers only are to be considered. The less prejudiced view is that salaried employees are "workers" also.

(1) Table on page 4.

The "Socialist Congressional Campaign Handbook for 1914" tentatively includes salaried employees as workers and figures the per capita production in 1909 as $1,151 per worker and the "percentage of wealth produced received by the worker, 51.17 per cent," which tallies with our figures of $1,152 and 51.2 per cent for the same census.(2)

(2) Page 142.

The authors of the National Handbook divided the Added Value, or net production in manufactures, by the number of wage-earners, thus treating manual laborers only as producers, ignoring the important functions performed not only by salaried employees but by the working proprietors of small establishments. This is an appropriation of the services of nearly a million active workers and has the effect of padding the per capita product of the wage-earner.(3)

(3) See 1910 Census Abstract, table 2, page 138; also under "Character of Ownership," page 461, and "Size of Establishment," pages 464–5.

The writer of the article on "The Measure of Exploitation" in the Congressional Campaign Book treated salaried employees as workers in finding the per capita product and then wavered by saying, "or if we eliminate

the salaried employees as the National Handbook does, the average production for each person would be as they state it, $1,290." (1)

(1) Page 142.

The same article correctly discusses miscellaneous expenses and depreciation as deductions from the net product, and actually deducts expenses in order to find the "net profits." These he finds to be for manufactures in 1909, $2,218,972,000 (should be $2,218,962,000).

To this point the method is exactly like ours except that no attempt is made to allow for depreciation. The analysis then continues:

> "The amount [of?] net profit to the 273,265 proprietors and firm members (the value of the products less the total expense) was $2,218,972,000, which is over 12 per cent on the capital employed, or more than $8,120 average annual income to each."
>
> "Average annual wage to worker, $518."
>
> "Average annual income to owner, $8,120."

This is an extraordinary error, disfiguring an honest effort to compare wages and profits. The 273,265 proprietors and firm members did not even own the establishments which produced the $2,218,972,000 (sic) of so-called net profits. The facts as to what proportion they did own can best be illustrated by a summary of the conditions in 1909:

Character of (1) Ownership	Number of Plants	Number of Wage Earners	Value of Products	Value Added by Manufacture
Individual	140,605	804,883	2,042,061,500	968,824,072
Average per Plant		6	14,523	6,890
Firm	54,265	794,836	2,184,107,632	951,383,741
Average per Plant		15	40,249	17,532
Corporation	69,501	5,002,393	16,341,116,634	6,582,207,117
Average per Plant		72	235,121	94,721
Other	4,120	12,934	104,766,104	26,846,062
Average per Plant		3	25,429	6,516
All Classes	268,491	6,615,046	20,672,051,870	8,529,260,992
Average per Plant		25	76,993	31,767
Per cent of Total:				
Individual	52 4	12 2	9 9	11 4
Firm	20 2	12 0	10 6	11 2
Corporation	25 9	75 6	79 0	77 2
Other	1 5	0 2	0 5	0 3

(1) Table 20, page 461, 1910 Census Abstract.

The establishments owned by individuals and firms produced only 20.5 per cent of the gross value of manufactured products and 22.6 per cent of the value added in manufacture. In estimating the net profits of all manufactures at $2,218,972,000 in order to divide it among 273,265 "proprietors and firm members" the campaign handbook ignores the stockholders of the 69,501 manufacturing corporations which produce 79 per cent of the gross product. Being corporations, each of them has several stockholders, and one of them, the United States Steel Corporation, had in 1913 74,626 holders of preferred stock and 39,679 holders of common stock. The census does not undertake to tell us how many persons have capital invested in factories. In table 2, page 438, of the 1910 Abstract, it enumerates under "persons engaged in manufacture" 273,265 "proprietors and firm members," and naturally omits the stockholders of manufacturing corporations because they are not "persons engaged in manufacture" in the sense that they are personally and actively occupied. At this point, the census report had not reached the subject of ownership at all, so that not the census table but its commentator is responsible for the error. If he had pursued the subject as far as page 461 of the 1910 Abstract, he would have found the facts as to ownership clearly stated.

A later and more thorough attempt to ascertain the truth on this subject has been made by W. J. Ghent in "The Appeal Almanac and Arsenal of Facts for 1915," published by "The Appeal to Reason." In an article on "The Worker's Share," Mr. Ghent correctly states that the factory value is the only one we are warranted in considering when ascertaining the factory worker's share:

> "If we took the wholesale value, or the jobbing value, or the retail value, we should also have to consider the additional toil of thousands and thousands of other men,—railway workers, shippers, teamsters, salesmen and multitudes of others whose work is necessary in marketing goods to the consumer."

And later:

> "Of course, a previous profit was made on the production and marketing of the raw material, but that also involved the toil of men outside the factories." (1)

(1) Pages 121-122.

He is not quite so happy in his treatment of miscellaneous expenses, of which he asserts:

> "The classification of the various entries under this heading in the 1904 census showed that no less than 86 per cent of this expense was a capital charge,—rent of offices, rent of land, insurance and the like."

He admits that it was a charge against the manufacturer, but regarding it as illegitimate, reduces "the amount for legitimate miscellaneous expenses to 14 per cent of the total given." That is, in ascertaining the division between the laborer and the manufacturer, he refuses to allow 86 per cent of the miscellaneous expense of nearly two billion dollars as an expense and thus retains it as a part of the "net profit." Adequate accountancy would require that it be thrown out to ascertain the "net profit," by which Mr. Ghent apparently means net product.[1]

(1) Page 123.

Consistency would also require that Mr. Ghent concede that all the items of expense that the census enumerates, except royalties, use of patents and insurance, are like the cost of raw materials in that they involve the toil of men outside the factories. Thus traveling expenses form the revenues of railroads and hotels, advertising the revenues of the printing and publishing trades, repairs to buildings and machinery, the revenues of the building and machinery trades, and in all of these the larger portion of the net product will be found going for services.

Rent of offices and buildings is primarily a payment to a capitalist. The capitalist has advanced money to pay the workers who constructed the building, and the men who furnished the material which was used in the building. Through every dollar of rent which he receives for the building itself runs the same general division between

laborer and capitalist as obtains in the trades represented. The toil of men outside the factory is involved here also.

Mr. Ghent treats the subject of salaries rather cavalierly. Admitting that superintendence, designing, planning and clerical work are essential to production, he nevertheless regards one-half of the salaries reported in manufacturing as disguised profits. He makes what he terms a fair guess that two-thirds of the salaried employees were actual workers and that they received about one-half of the salaries. This is pure assumption. In only one industry, the railroads, are salaries by classes of employees reported with the care which would enable Mr. Ghent to make his separation of the drones from the workers and examination of the figures shows that the high-salaried general officers draw less than two per cent of the total railroad pay-roll, as will be demonstrated in its proper place in this discussion. It is quite possible, also, that a few of these railroad officials would be able to convince Mr. Ghent that they are reasonably hard-working men and of some value to their industry.

Mr. Ghent's conclusion is that the wage-earning workers and their "salaried auxiliaries" received 48.8 per cent of the net product, a finding which is considerably vitiated by his treatment of both salaries and miscellaneous expenses.

An allied article by Mr. Ghent in the same handbook is headed "Larger Share to Capital" and undertakes to show that an increasing share of the value produced is going to capital.[1] Later we shall give an analysis of the census returns that distinctly tends to disprove this but for the present it is necessary only to show wherein Mr. Ghent has erred in his table. He quotes for all industries:

(1) Pages 124-125.

	Per Cent Increase in Ten Years
Number of Wage Earners	40.4
Value of Products	81.2

He fails to quote:

	Per Cent Increase in Ten Years
Wage Payments	70.6
Capital Employed	105.3
Cost of Materials	84.7
Value Aided by Manufacture	76.6

Mr. Ghent is one of the ablest and fairest of the Socialist leaders and one of their best statisticians, but the prevailing obsession that the difference between labor cost and selling price represents employer's profit is apt to get hold of him. The increase in wage payments and cost of materials between 1899 and 1909 would naturally reflect itself in the value of the products to about the extent of which he complains as unjust to the worker, without necessarily increasing the returns to capital. The value of products might have increased faster than the number of wage-earners and the employer might be and probably was doing business on a narrower margin. A period of rising prices is also necessarily a period of rising costs.

"Income" is the striking and suggestive title of a new book by Dr. Scott Nearing (The Macmillan Co., New York, May, 1915). Dr. Nearing's previous books manifest a deep sympathy for the problems that face the wage-earner and a conscientious care that entitle his figures to be used with confidence. His new work is an examination into the returns from services rendered and from property owned in the United States with the avowed intention of ascertaining whether the worker is receiving his rightful share. The work of this committee parallels to some extent in its statistical analysis the work of Dr. Nearing. The latter, however, pays more attention to ascertaining actual service income, and his treatment of property income is an effort to discover the exact returns upon capital which through dividends and interest becomes expendable income. This report, on the other hand, deals with the general division of net industry earnings between labor and capital, and by reason of the character of the available statistics is obliged to deal in the main with the gross return to capital. Dr. Nearing quotes approvingly Dr. F. H. Streightoff as stating that in eight large American industries, employing over three million laborers, the share of labor is 61 per cent and of capital 39 per cent.[1] In the paragraph quoted from Dr. Streightoff is mentioned Dr. Spahr's conclusion in the "Essay on the Present Distribution of Wealth in the United States" that 60 per cent of the national incomes in Basel, France, Saxony, the United Kingdom and the United States goes to labor and 40 per cent to capital.

(1) "Income" (page 20). This chapter of Dr. Nearing's work, as originally published in Quarterly Publications of the American Statistical Association Sept., 1914, under the title "Service Income and Property Income," includes Dr. Streightoff's table containing the data for this conclusion, the table being missing from the chapter when published in book form.

Dr. Nearing himself considers the present data for the separation of service income from property income incomplete and finds most census returns, particularly those for manufacturing, disappointing, in giving him no clue to the net income of capital corresponding to the dividends and interest of corporations. They "contain but a partial analysis of the disposition of the values derived from manufacturing" is his comment on the 1899 factory figures, and he turns by preference to state reports and to the reports of large manufacturing corporations. But while cautious about giving percentages, his generalizations are frequent and agree with those of this committee. Approximately one-half of the gross receipts of transportation agencies is paid out in the form of service income (wages and salaries).[1] In general, the conclusions which apply to the railroads are equally applicable to street railways and other public utilities.[2] About one-half of the value added in manufacture goes for services, and the proportion paid to property is very much less, although no defensible statement may be made in figures. Of the gross manufacturing income one-fifth goes for services.[3] In mining, the proportion of service income to property income is about 4 to 1.[4] Among the great industries, about one-half the value created by manufacture, or of the equivalent of that term, is paid out as wages and salaries with a less proportion, in many instances considerably less for interest and dividends.[5] There is a demonstrable relation between service and property incomes but no fixed

(1) "Income," page 38.

(2) "Income," page 40.

(3) "Income," page 18.

(4) "Income," page 50-51.

(5) "Income," page 51.

rate that will hold true for all industries, or throughout any one industry.[2] With these general conclusions, the committee agrees, and believes that Dr. Nearing will agree with its findings.

[2] "Income," pages 51–52.

A careful examination of many standard works on wage questions has failed to disclose any attempt to deal scientifically with this question other than those mentioned. Leading economists who were appealed to knew of no others.

FIGURES FOR OTHER INDUSTRIES

The census for mines and quarries furnishes us another set of statistics of importance, covering as they do the work of over 1,100,000 employees in 1909. Actively producing properties only are considered here. The returns, treated on the same principles that were applied to the returns for manufactures, yield somewhat similar percentages. Inasmuch as the factory figures were so exhaustively discussed, it seems unnecessary to repeat the entire analysis here.

U. S. MINES AND QUARRIES—1909 [1]

[1] Table 2, page 541, Abstract of the Thirteenth Census (1910).

(Producing Enterprises Only)		
Gross Production		$1,238,410,322
Expenses:		
Salaries	53,393,551	
Wages	586,774,079	
Supplies and Materials	247,866,304	
Royalties and Rent of Mines	63,973,585	
Contract Work	28,887,898	
Miscellaneous	61,747,276	
Gross Product	1,238,410,322	
Less Supplies, Materials, Contract Work and Miscellaneous	338,501,478	
Net Product	$899,908,844	
Wages and Salaries	$640,167,630	71%
Rents, Royalties and Profits	259,741,214	29%

The closeness of the results to the percentages for manufacture will be found noteworthy. Further analysis might alter them slightly. Contract work, if analyzed, would be found to consist principally of services, which would be added in the wages and salaries column. As to the 29 per cent for royalties and profits, it must be remembered that when a mine is exhausted, the entire capital it represents has usually disappeared, so that in mining, it is necessary to write off each year part of the value of mining property owned. The percentage set apart for the mine-owners in the above table is still subject to allowance for depreciation.

The operations of another great industry, the steam railroads, which employed in 1910, 1,551,576 persons, are not covered by the census reports, but for a number of years the Interstate Commerce Commission has published statistics of railroads annually. The uniform system of accounting prescribed by the commission undoubtedly makes these figures more accurate than those concerning manufactures. But as the operations of railroading differ from those of manufacturing enterprises, the published figures are in somewhat different form from those given by the census for manufactures. We cannot make so accurate and satisfactory a distinction in railroad figures between miscellaneous expenses and materials as in the case of manufactures. It is not, however, a difficult matter to determine the aggregate income divisible between capital and labor and the share which goes to each. For the purpose of comparison with the manufacturing figures we have used in the following statement the railway figures for 1909.

RAILROADS, 1909 [1]		
Operating Revenues		$2,418,677,538
Less Taxes	$85,139,554	
Operating Expenses Other than Labor	611,119,716	696,259,270
Income Divisible Between Capital and Labor		$1,722,418,268
Labor		988,323,694
Remaining to Capital		$734,094,574

[1] Interstate Commerce Commission, 22nd Annual Report of the Statistics of Railways in the United States, for the year ending June 30, 1909.

It seemed proper for the purpose of this report, which is to determine if practicable the respective shares of labor and capital and not to present a complete view of the aggregate operations of any industry, to confine the analysis of the railway accounts to the operating revenues, other revenues derived from investments being excluded. In the form in which the accounts are stated the operating expenses are divided into a large number of separate accounts, some of which refer to services, others to purchases of materials for the locomotives and trains, and still others to advertising, printing and the like, items which in the manufacturing statistics are classed as miscellaneous expenses. The whole expenditure attributed to labor is not taken from the itemized account but from a general statement in another portion of the report in regard to the aggregate payroll of the railroads for the year. The expenses of operation, other than labor, fall into one of the two classes of purchased materials or miscellaneous expenses, the only item of miscellaneous expense which is stated as distinct from other operating expenses being taxes. In our analysis we have proceeded by the same method as in the consideration of the manufacturing returns. From the gross revenue there has been deducted the amount paid in taxes and the amount paid for operating expenses other than labor. The result of this subtraction constitutes the income divisible between capital and labor, and is in every respect parallel to the corresponding product of manufactures. Translated into percentages the figures given above show that of the total operating income of the railroads which is divisible between capital and labor the share of labor is 57.4 per cent, and that of capital 42.6 per cent.

Here a comparison is possible with the figures assembled by the railroads themselves. The principal companies, 368 in number, maintain the Bureau of Railway News and Statistics for the purpose of presenting their views on rates and regulation. The member companies render to the bureau the same reports as to the Interstate Commerce Commission. While the bureau exists to further the railroad interests, its statistics are in the main fair and accurate. Treated by the same method as the commission's figures given above, they apportion 58.2 per cent of the divisible income to labor and 41.8 per cent to capital. The difference between the two sets of percentages is fractional, and seems to be fully accounted for by the fact that the bureau received reports from systems operating 221,132 miles of line

in 1909, but did not cover 11,870 miles of minor lines reporting to the commission but not to the bureau.

The bureau presents the following statement for 1909:

Statement of Distribution of Gross Earnings of 221,132 miles of line in 1909.

(From the "Railway Library" for 1909, page 362)

Pay of Employees	$973,174,419
Fuel for Locomotives	184,359,112
Oil and Water for Locomotives	19,951,184
Materials and Supplies	219,463,028
Rent of Equipment, etc.	54,638,243
Loss and Damage	56,379,042
Miscellaneous (1)	60,146,242
Taxes (2)	88,531,566
Rentals of Leased Roads	114,903,630
Interest on Debt, Funded and Current	315,884,884
Dividends	171,607,550
Deficits of Weak Companies	20,223,246
Betterments, Reserves and Sundries	47,494,754
Surplus	48,384,864
(3) TOTAL (Gross Earnings)	$2,375,141,764

(1) Legal expenses, advertising and insurance are included under "Miscellaneous"; stationery and printing under "Materials and Supplies."
(2) Includes taxes paid by leased lines and deducted from rent.
(3) An apparent error of $2 in addition to the original total has been corrected.

The same method as hitherto used would indicate the following distribution:

Gross Earnings		$2,375,141,764	
Less Certain Expenses:			
Fuel for Locomotives	$184,359,112		
Oil and Water for Locomotives	19,951,184		
Materials and Supplies	219,463,028		
Rent of Equipment, etc.	54,638,243		
Loss and Damage	56,379,042		
Miscellaneous	60,146,242		
Taxes	88,531,566	683,468,417	
Income Divisible Between Capital and Labor		$1,691,673,347	
Less Deficits of Weak Companies		20,223,246	
Net Divisible Income		$1,671,450,101	
To Employees:			
Wages and Salaries		973,174,419	58.2%
To Capitalists:			
Rents of Leased Lines	$114,903,630		
Interest	315,884,884		
Dividends	171,607,550	602,396,064	36.1%
Reserved for Depreciation:			
Betterments, Reserves and Sundries	47,494,754		
Surplus	48,384,864	95,879,618	5.7%

No such traditional and usual allowance for depreciation as obtains in manufacturing industries is recognized in railroad accounting. The expenditures for maintenance, whether of permanent way, structures or equipment, vary according to the needs of the case, the financial condition of the company, and general business conditions. Certain recognized standards of maintenance, essential to safety or efficiency, cannot be safely avoided for long, but, in general, railroad accounts make no set allowance for depreciation. So much money is reported as spent for maintenance and charged to operating expenses. In 1909, for the 221,132 miles reported upon by the railway bureau, the Railway News Library (page 362) gives the following expenditures:

Maintenance of Way and Structures	$299,757,077
Maintenance of Equipment	358,747,371
	$658,504,448

This is slightly under 5 per cent on the net capitalization of the same 368 companies, as reported by the same authority (page 338).

These are maintenance expenses, not charges for depreciation. They do not dispose of obsolescence, which frequently has to be met by the issue of new capital. The Interstate Commerce Commission, following the lead of the railroads themselves, makes no adequate provision for this expense. If we count the surplus out of earnings as an addition to the share of capital, we are not making sufficient allowance for the depreciation which that surplus, in the case of many roads, is intended to offset as a loss to the capitalist.

There are a few conspicuous instances of "melon-cutting" out of surplus, but prudent railroad managements hold surplus intact for the future needs of the road, and for maintenance of dividend payments in times of depression. Experience shows that when a railroad begins to pay dividends from surplus, it soon has to pass dividends for lack of ready cash, and there are some pointed examples of the woeful results of paying to the stockholders in unduly high dividends earnings which were needed for the maintenance and development of the property.

For this reason we have set aside for depreciation, in addition to mere maintenance charges, the entire surplus reported. We have also set aside as an offset to depreciation the entire expenditures for betterments, because out of this fund must come many of the expenditures required from the railroads by the public demand for sightliness, convenience and increased safety. The investment of a portion of a railroad's net earnings in handsome buildings, track elevation, electrification, improved signal systems and like betterments may add to the taxable value of its property without in the slightest increasing revenues. Indeed, some of these very betterments may involve increased expense in maintenance or operation in return for which the company can benefit only in increased prestige or goodwill.

The treatment of rent of equipment and rent of leased lines has been difficult and may provoke criticism from more than one direction. Rent of equipment has been separated as an expense on the same principle that rent of buildings used in manufacturing has been deducted as an expense. It is primarily a payment to capitalists who have advanced money to purchase for the railroad the use of the products of outside industries. Through this item of rent of equipment runs the same general division between laborer and capitalist as obtains in the industries represented. The labor has been requited at the moment of expenditure, but this payment, during the process of manufacture, of the labor involved did not finally blot out the labor cost. This cost has been passed along from its original purchasers (the car and locomotive building companies, etc.) to those owning the road, to be paid by them in annual instalments in the shape of interest on some form of equipment notes. It does not remain within the railroad industry to be divided between railroad labor and capital.

Similarly, of course, the item for rent of leased lines, which does remain within the railroad industry, represents for the larger part original heavy expenditures for labor. But when set down in a primary division of net railroad earnings, the art of the accountant fails to show this. The

payments for rent of leased lines are made primarily to capitalists, who at some time advanced their capital to pay for labor and materials necessary for the construction and equipment of those railroads. These indirect or concealed labor costs, which in the case of any commodity or service impinge upon immediate and visible labor cost at every moment of manufacture, transportation or trade, make us realize the impossibility of determining, with final accuracy, what share does go to the labor consumed, indirectly as well as directly.

The very item of interest on bonds and other railroad indebtedness is surely a payment to capital primarily, yet if analyzed conceals labor charges paid during the period of construction, as the dividends paid to stockholders include not only the profits of management but a return upon the capitalized cost of construction. A more scientific and extended treatment of the subject than is possible here is called for before we can assert that the intricacies involved have been completely explored. The difficulties of such an analysis with respect to an industry so complex as the railroad business are peculiarly baffling. In it are represented several classes of capitalists, such as stockholders and bondholders both in owned and leased lines, and it seems that the rentals paid to lines under lease are in some cases subject to deductions for rents of other roads and facilities of which these leased lines are the lessees, for additions and betterments charged to income, for sinking fund charged, and for hire of equipment.

A dollar of railroad revenue is subject to such minute division, some of it for capital and labor immediately employed, and some of it for service rendered half a century ago, and it passes through so many hands in the process of being distributed, that final analysis here is hopeless. The best assurance that the final division between labor and capital is not unjust to the laborer lies in the conceded fact that in recent years railroad wages have been noticeably higher than in other industries requiring equal training, while for the past few years at least railroad dividends have been visibly on the decline. Railroad capital per employee in 1909 was $8,706 per capita as against $2,786 per capita in manufacturing. If the share of capital in railroad earnings seems higher in percentage than in manufacturing industries, the heavier proportionate requirements for capital accounts for it fully.

Statistics similar to those for railways have been published from time to time by the Interstate Commerce Commission for operations of the express companies. The aggregate of such operations is of course trifling in comparison with that of the railroads. From the official report of 1909 we may select the following figures which have a bearing upon the particular inquiry in which we are engaged.

EXPRESS COMPANIES, 1909 (1)

Operating Revenues		$132,599,190 92
Less Express Privileges	$64,032,126 69	
Taxes	906,549 15	
Operating Expenses Other than Labor	21,273,936 71	86,212,582 55
Income Divisible Between Capital and Labor		46,386,608 47
Labor		34,999,118 58
Remaining to Capital		$11,387,489 89

(1) The figures for 1909 were taken from the Interstate Commerce Commission's second annual report of the statistics of express companies in the United States for the year ended June 30, 1910.

The method followed in the foregoing statement is exactly parallel to that in the case of railroads. The income divisible between capital and labor is found by deducting from the operating revenues the payments to the railroads for express privileges, the taxes and the operating expenses other than labor costs, some of which represent miscellaneous expenses and some of which represent purchases of supplies and equipment. It has seemed proper to leave out of the consideration, for the purpose of this calculation, the considerable income which the express companies derived from investments, as this has nothing to do with the operations. It results from these figures that of the income divisible between capital and labor 75.5 per cent goes to labor and 24.5 per cent to capital.

Similar in their general purport are certain figures which have been published by the American Telephone and Telegraph Company. In their report for 1911 (1) there is printed

(1) Annual Report of the Directors of the American Telephone and Telegraph Company, to the Stockholders, for the year ending December 31, 1911, page 18.

an interesting diagram showing the disposition of the gross revenue of the Bell System in the year 1911. This diagram gives comparisons only and not the actual figures. It shows a disposition of the gross revenue as follows:

Salaries and Wages	50 per cent
Interest and Dividends	19 " "
Surplus	6 " "
Materials, Rent, Traveling, etc.	20 " "
Taxes	5 " "

To make these figures comparable with those previously given, we should deduct from the aggregate the expenditures for taxes and for materials and supplies. If this be done, we have a total of 75 per cent, representing the return to labor and to capital, 50 per cent or two-thirds of this amount going to labor, and 25 per cent or one-third going to capital. With respect to the significance of these figures the company makes the following comment:

> "The diagram shows the distribution of the gross revenues received from the public. Probably no industry of national scope pays back to the same communities a larger percentage of the revenues that it receives from them. Salaries, wages, taxes, maintenance and other operating expenses, are distributed very closely in proportion to the amounts paid for telephone service, while the amount paid in dividends and interest, 19 per cent of the whole, was distributed over the whole country."

In the foregoing paragraphs we have brought together all of the material which has come to our knowledge which permits an approximation of the relative share of capital and labor in their joint product. In so doing we have examined the statistics covering over 10,000,000 wage and salary earners, or more than 25 per cent of the gainfully employed, and probably a majority of those who worked for wages and salaries. No important addition could be made unless it were possible to carry out the same investigation in agriculture. But here parallel statistics are lacking. This field of activity employed in 1910, 6,143,799 laborers. The employers or farmers numbered 6,062,282 and as many of them are manual workers as well as small capitalists, it will be seen that it would be extremely difficult to establish in agriculture the relation of wages to the product.

In general the figures show that there are certain charges in every industry which are essential and indispensable and which must be made from the gross product of the industry before it can be ascertained how much remains for division between capital and labor. After these have been deducted the remaining income seems to be divided about in the relation of two-thirds for wages and salaries and one-third for interest and profits, out of which latter the recipients must sooner or later provide for depreciation.

A PREVALENT STATISTICAL ERROR IN CURRENT DISCUSSIONS.

The conclusion that two-thirds of the net product in American industries is paid for services and one-third for interest, profits and depreciation runs counter to a large and persisting volume of popular discussion in which a totally different division is assumed as a basic fact.

One of the most common statistical errors which are afloat, — the statement that the average worker receives in wages only one-fifth or thereabouts of what he produces — furnishes a striking example of this. As a statement of the division between capital and labor of the net wealth produced in industry it is upon its face absurdly untrue. Yet it has attained widespread circulation on both sides of the Atlantic, is met with constantly in periodical literature of certain descriptions, is constantly being quoted on the stump, figures in the controversies between capital and labor, and it has been repeated as economic gospel by no less a personage than the Vice-President of the United States in a commencement day oration at a prominent university.

A short time after the publication of Census Bulletin No. 150 (12th census taken in 1900), it was asserted that the census proved the average product per worker in the manufacturing industries of the United States to be $2,471, of which he received $437 in wages. The averages were approximately correct.(1) The annual gross value of products,

(1) "According to Census Bulletin No. 150 the average skilled mechanic produces $2,471.00 worth of goods and receives in wages but $437.00. It is self-evident that the laborer's wage of $437.00 will not buy back his total product of $2,471.00." — "Hawks and Hens," published by W. F. Ries, Toledo, Ohio (page 23).

The figures given here cannot be derived from the figures published in the census bulletin referred to, either in the first edition or in the second, revised edition. The figure which result from the division of the total product of manufactures by the average number of wage-earners are according to the first edition, 2451, and according to the second edition, 2448; while the figure which results from dividing the aggregate wages paid by the average number of wage-earners is according to both editions, 438. The figures cited in the text, and quoted from W. F. Ries in the note, can also be found in various popular articles and pamphlets current at the time.

when divided by the total number of wage-earners, does yield an average of $2,420 and the average annual wage is correctly stated.(1) It is true that the statement contains a

(1) Computed from figures relating to factory products printed, page 438, Abstract of the Thirteenth Census (1910).

concealment of an important collateral fact. There were also engaged in our manufacturing industries during the census year (1899), which is being examined, 364,120 "salaried officials and clerks." These included superintendents, managers, and in many cases salesmen, also chemists, trained engineers, draughtsmen and other experts, so important to mechanical industries nowadays, besides the mere clerical force. The clerical force, moreover, must have included not merely bookkeepers, but stenographers, and keepers of cost-records and other statistics which are of intense importance.

These people added value to the product because they were performing necessary duties which must be continued. If they were not occupying their positions, substitutes would have to be taken from the manually-productive force and trained to new and sometimes difficult duties, with a consequent lessening of production and a great increase of confusion. Including them in the computation would reduce the amount of product per worker and raise the average wage, but for the present this correction may be dispensed with, because a more important error is contained in the statement which will necessitate a new basis of comparison for further reasoning. The point is touched upon here only to emphasize the fact that in modern industry there are large and important bodies of workers who cannot be described either as proprietors or capitalists on the one hand, or as wage-earners or manual laborers on the other. They are truly workers, though they work with head rather than hand, and are properly to be considered as producers and wage-earners, though their earnings are termed salaries.

To return to the wage-earner, the annual product per worker and his annual wage, we have in the foregoing statement, — that in 1900 the product per wage-earner was $2,471 or any similar sum, — a statistical error of the first magnitude. It is also open to criticism that in the form in which it is usually stated the language carries with it the inference or assertion, first, that labor produces this entire product; and second, that capital gets all that labor does not get. Compressed into one striking sentence, it is said that "the laborer gets one-fifth of what he produces and is robbed of the remaining four-fifths." Such a charge is hurled at the existing social system frequently in almost these very words in speeches, books and pamphlets. And if it were true it could not be repeated too often. Any social and industrial system which consumes by waste or friction, or withholds by law or custom, force or fraud, four-fifths of what the worker produces, would be self-condemned by its own records as intolerably wasteful and intolerably unjust.

The error lies in the assumption that the processes of manufacture produce the entire value of the product which is delivered to the shipping room. Under this assumption, no account is taken of materials. It ignores the fact that the materials have value when they go into the factory which the factory processes do not create. When they go out of the factory gate their value is increased by the processes of manufacture, but it is the difference between the new value and the original value which represents the work done in manufacturing. In 1899 the materials used were equivalent to $1,395 per wage-earner,(1) and since the prod-

(1) Computed from figures relating to factory products printed, page 438, Abstract of the Thirteenth Census (1910).

ucts were valued at $2,420 per worker, the difference, $1,025, represents the value per worker which manufacturing has produced. This is what the census publications describe as value added by manufacture (value of products less the cost of materials); for brevity we have called it the Added Value. It was the true product in manufacturing industry in 1899. It was the amount of new wealth "produced by the average wage-earner." It is the extreme and outside figure per wage-earner for all that he receives, plus all that

can possibly be diverted from him. Put aside temporarily the question whether all of it is his unaided, personal product. If the wage-earner owned the factory and could operate it and market the product without expense, so that the entire product belonged to him alone, this figure represents what on the average he would get. If he could make goods with his bare hands under the open sky, on land that cost nothing, and work as efficiently without tools, machines, superintendence and clerical assistance as he does in the costly modern manufacturing plant, he could not pay himself more than $1,025 a year, if he had to pay for his materials. And if he did not set aside $1,395 per annum out of his gross product of $2,420 to pay for his materials, who would furnish them?

The materials used in manufacturing plants are in part the products of other factories. In these factories, value has been added to other materials, which may have been procured, either in a partly manufactured state, or as the raw products of farms, forests or fisheries, or as the crude or semi-crude products of mines, quarries or wells.

Most products pass through more hands on the way to the manufacturer than between the manufacturer and the ultimate consumer. Each hand adds value. The farmer, the miner, the lumberman, the fisherman, who produce raw material that need handling before consumption, have left their mark on the materials that enter the factory gate. Furthermore, each service, whether of trade or transportation that goes to the assembling of materials in a factory, adds value to the materials. Iron ore gains value when it is mined, again when it is raised from the mine, again when it is moved by rail or boat to the blast furnace, again when as pig iron it moves to the steel mill. Even the horse that draws the farmer's load of wheat to the railroad station on the way to the flour mill, adds value to the wheat and must get his pay for the service in oats. No man is entitled to point to the per capita product and say "I created this and its value is rightfully my wages," unless he can show that all the value it represents has been created since it reached his hands and solely by him.

The assertion that the average worker produced $2,471 a year, or any similar figure, in the manufacturing plants of the United States in 1899 is thus seen to be an error that does no credit to the intelligence of those who repeat it, yet it has been current for thirteen years and seems to have been left over in another and milder form from the census in 1890. Probably it has been afloat for nearly twenty-five years, and gaining believers all the time. There is no excuse for its origination or repetition. The census publications explicitly warn their readers against this possibility of error.[1]

[1] (Page 438 of 1910 Abstract, also publications of previous years.) The 1910 Abstract says: "The value added by manufacture, namely, the difference between the cost of materials and the total value of products, was $8,529,261,000. This figure best represents the net wealth created by manufacturing operations, because the gross value of products includes the cost of materials used, which are either the product of non-manufacturing industries, such as agriculture, forestry, fisheries and mining, or else are themselves the product of manufacturing establishments. The value of products derived from this latter class of materials involves a duplication, inasmuch as the value of these materials has already figured in the value of products reported for the establishments manufacturing them in the first instance; in some cases, indeed, where a given product has passed through several distinct stages of manufacture in different establishments before reaching its final form, this duplication may be repeated several times. All such duplications, as well as the original value of materials, are, however, eliminated in the figures for value added by manufacture," page 438.

Its tables show the value added by manufacture for all industries, for specified industries, for each state and for cities and towns of 10,000 population and over. Added Value is constantly put forward in the returns as the figure best representing the net wealth produced by manufacturing industry.

It seems incredible that such an error could escape instant repudiation, yet it not only attains circulation, but finds advocates who defend it against criticism. In doing so, they frequently point out that the value of the products at the factory is less than the cost to the consumer when sold at retail, and then add 50 or 75 per cent, or some such figure, to cover the cost of getting the goods into the hands of the consumer. Then because the value of the factory product, plus selling expenses and retailer's profit, again looms considerably larger than the producer's wages, the argument continues thus:

> "Now the price of the goods is three, four, five times the wages of the man who has made them. He is unable to buy back the goods he has produced. Consequently, there exists what we call over-production. Raise the worker's wages and cut down his hours and there will be no over-production and no panics. Instead of a panic we will have a picnic, etc., etc."

But in this, which is merely briefly representative of reams of the same sort of argument, there is more false reasoning. In moving to market the goods re-enter the realm of transportation and trade, and once more we have to consider the other persons who give value to the product. The factory worker can no more obtain as his wage the entire retail price of his product than he can secure coal, iron, wheat or copper from the producer free of cost, or withhold the just due of oats from the farmer's horse. The difference between the price at the factory and the price over the retailer's counter may be described as a new Added Value. It is required to pay cartage, freight and services needed to bring the product to market. The teamster and his horses, the locomotive and the railroadmen, the elevator and the elevator man, the merchant and his delivery truck, the clerk who sells it, and the boy who delivers it, all add to the value of the article and must be paid or supported out of its enhanced value. Their services can no more be obtained free for the marketing of the product than the crude materials out of which it was born can be obtained without price from the farm, the forest or the mine. The attempt to take the entire value of a product for the benefit of any one class of producers leads to difficulties just as one false move on the chess-board leads to another. We cannot rob Peter to pay Paul, for if we do, Peter will quit work. Then Paul will have to stop work to provide his own materials, or to take his goods to market, and his product will be proportionately reduced. Indeed, it will be more than proportionately reduced, for all the advantages derived from specialization in industry will be forfeited.

Still there are social prophets who are daily promising the workers incomes equal to $3,000, $4,000 or $5,000 a year, merely by obtaining for him "the whole of their product." These promises generally rest upon the belief that the product in representative industries really amounts to some such sum per manual worker, and that the difference between his meager wages and the handsome round sums which represent his supposed product, is diverted wrongfully from his hands. We have seen how delusive these promises must be

if they rest upon the usual asserted basis, the United States census returns.

It is impossible to refrain from pointing out the danger that exists here. We live in a democracy, working under a constitution that can be completely reconstructed in two years by a majority vote in the legislatures of three-fourths of the states, and a two-thirds vote in Congress. The great majority of the voters do not receive an income of $2,400 a year or over, nor have they any immediate hope of doing so. If a substantial majority of them once believe that their average earnings are $2,400 a year, or any similar sum, but that four-fifths of their earnings or some such fraction is wrongfully withheld or even wasted before it reaches them, there will be a social revolution at the next presidential election. There would be another revolution when the first year's distribution shows an average product of $1,025 or less and this time it would be the false prophets who would be the first to suffer, but in the meantime irreparable damage might be done to the social fabric.

AN ATTEMPT TO ASCERTAIN THE SOCIALIST VIEW

So crude an error as the assertion that the worker receives only 20 per cent of the product should have been instantly detected, because it is based upon the fallacy that the industry does not have to pay out of its product for the value of the raw materials which are delivered to it by other industries. Yet it survives as a hardy and prolific perennial. Wherever the relation of wages to product is being discussed, this rule of thumb of 1 to 5 or 5 to 1, handy but false, is apt to crop up. It was probably set afloat by *The Appeal to Reason*, a socialist weekly, which frequently refers to it. The alleged product of $2,471 per capita has grown with the passing years to $3,000, $3,500 and possibly higher. A favorite form of the assertion is that the American worker produces $10 a day and receives $2 a day. It is this variant, so easy to remember and quote, that has been repeated so often and denied so seldom that it has become, like the tradition that witches were burned at Salem, a part of the common stock of facts that are not so.

It would be unfair to charge to the Socialist Party as an organization an error which has never appeared in its platforms or in any of its formal and official declarations. Nevertheless it cannot escape responsibility for circulating the fallacy. The Socialist Party headquarters at Chicago sells Allen L. Benson's popular exposition, "The Truth About Socialism," which contains it, and in 1914 the party circulated as a document 500,000 copies of Mr. Benson's magazine article, "The Bombshell that Henry Ford Fired," which is one long rhetorical assertion that some such rate of exploitation is general in industry. In 1910 the party circulated a propaganda pamphlet entitled "Should Socialism Be Crucified?" by Robert Hunter, of which this is an extract:

> "The average wages in this country, according to the figures of the United States Government, amount to $437 a year. For that amount in wages, the workers produce on an average $3,500 of wealth."

Many booklets sold at socialist meetings contain the statement that the workers produce $10 a day and receive $2, and the chances are that the speaker is making the same statement.

Such statements do not pass without protest from socialists. When Mr. Hunter's pamphlet was published Arthur Bullard wrote a letter which appeared in the *New York Call* of June 11, 1910, under the heading "Fifteen-Foot Trout." "If you tell a man you have caught a fifteen-foot trout," he says, "he will doubt whether you ever saw a fish." Then Mr. Bullard proceeded to point out that Mr. Hunter had made no allowance for the cost of materials in manufacturing.

Another who made a protest in the same spirit at the same time was Frank Bohn, an associate editor of the *International Socialist Review*. Mr. Bohn, however, is unable to carry the staff of the *Review* with him. The editor of the *International Socialist Review* is Charles H. Kerr, who is the author of a pamphlet entitled "What Socialism Is," which has apparently also been printed under the title "What to Read About Socialism." The following extracts indicate that he believes in the $10-a-day fallacy that Mr. Bohn repudiates:

> "*Surplus Value*—With modern machinery, an American wage-worker can produce and does on the average produce each day commodities that retail for at least $10.00. He gets on the average not over $2.00. These facts can no longer be denied." (1)

(1) Page 5.

> "In less than *two hours*, the American laborer produces wealth equal in value to the wages he receives." (2)

(2) Page 6.

> "The average American wage-worker to-day produces $10 and gets $2.00—the capitalist class of America to-day makes about $8.00 a day out of the labor of each productive wage-worker, which is far more than any previous ruling class ever squeezed out of its slaves." (3)

(3) Page 8.

> "Richardson's 'Industrial Problems' is a valuable work by an American writer illustrating the theory of surplus value with American facts; in this book will be found the data for the assertion that the American wage-worker produces $10.00 a day and receives back $2.00 in wages." (4)

(4) Page 9, N. A. Richardson's "Industrial Problems" (Charles H. Kerr & Co., 1911 edition) contains no data for this assertion. In Chapter II, "The Assumption," the author expressly states on page 11, "Let us assume that the retail price of what is produced by the average day's labor in the industries of this nation is $10.00." Again on page 12, "Again, let us assume that the part which goes to the laborer (as his wage) is $2.00 worth. Then $8.00 worth goes elsewhere." In foot-notes the author gives the census figures of 1905 for wages, and states that from business experience and study of government documents he "is convinced that the estimate of $10.00 is reasonable."

Two other associate editors of the *International Socialist Review* agree with Mr. Kerr in the position which Mr. Bohn criticises. Mary E. Marcy wrote "Why Catholic Workers Should Be Socialists," and asserted:

> "Government statistics show that the average man and woman make from $2,000 to $3,000 worth of things a year; that is, they produce between $2,000 and $3,000 of wealth a year. Their wages average $400 or $500 or about one-fifth of the wealth they produce." (5)

(5) "International Socialist Review," October, 1913. See also booklet of same title, pages 2 and 6 (Charles H. Kerr & Co., Chicago.)

Robert Rives LaMonte, another associate editor of the *Review*, and a former associate editor of the *New York Call*,

said in a lecture at Waterbury, Conn., on January 25, 1912:

> "The census of 1900 showed that the workers who worked in modern factories with modern machinery produced in round numbers a value of $10 a day and received a wage of (again in round numbers) $2 a day per worker. This statement is based on Tables I and 2 Census Bulletin No. 150. According to this bulletin the average wage in mechanical industries was $437 per year, and the annual product per worker $2,471." (2)

(2) Reported in *Waterbury Republican*, January 26, 1912, and later repeated by him in "Labor's Share in Its Product," in *New York Call* of March 18, 1912.

In June, 1914, a circular letter was sent out to a number of leading socialists asking whether there is any statistical foundation for such assertions as Mr. LaMonte's other than that which he states, what works contain the best analysis of the percentage of exploitation of the laborer, and requesting the recipient to indicate his views or state where they could be found. The letter was sent to 49 state secretaries of the Socialist Party, to 69 members of the national committee of the Socialist Party and to a list of 18 of the best known socialist writers not occupying official positions in the Socialist Party.

The forty replies which were received indicated a large measure of disagreement and considerable confusion of thought. The expression on the validity of the statement that labor receives only one-fifth of the product was as follows:

Believed It to be True	8
Believed It True if Wages were Compared with Retail Price of the Product	4
Repudiated It	10
Referred the Question to National Headquarters	10
Made Inconclusive Replies	4
Thought the Exact Proportion Immaterial	4

The classification might be varied somewhat, as a few of the replies indicated a blending of two of the above views.

Besides the ten persons who referred the question to headquarters a number of others who received the circular sent it to the Socialist Party's Information Department in Chicago with the suggestion that it be answered publicly. This was done by Carl D. Thompson, director of the Information Department, in *The Party Builder* of July 4, 1914, under the title "An Open Letter to Mr. William J. Pape of the Waterbury (Conn.) *Republican*."

Mr. Thompson referred to "the statement often made by socialist writers and speakers to the effect that the worker is robbed of four-fifths of the product of his toil." The gist of his reply to the circular letter of inquiry was as follows:

> "In reply to your inquiry concerning the degree of exploitation under capitalism, we wish to say that the Socialist Party has never asserted that the American workingman received only 20 per cent of his product. Individual socialists may have made these claims, but the party itself has not. Nor have the well-informed members of the party made such claims for the simple reason that there is not at the present time any statistical information available that would prove the contention.
>
> "The nearest we have to an official statement of the socialists upon this subject of the degree of exploitation that we have is the discussion of the matter, together with such meager statistical information as we have in this country, as presented in the National Campaign Book of the Socialist Party, part 4, section 2, page 155.(1) In this book, the difficulty of securing reliable information, due to the vagueness of the government statistics, is discussed and explained. Then follows an analysis of the census bulletin figures with such deductions as may legitimately be drawn from these figures, which, however, are admittedly unsatisfactory and non-conclusive. We there assume, basing our estimate upon the census reports and upon various careful studies that have been made by our students, that the workingman is, on an average, exploited out of about one-half of the products of his labor.
>
> "The figures given for the amount received by the worker are 51.7 per cent. We also quote an estimate by Mr. W. J. Ghent, who arrived at about the same conclusions—his figures being, for the share received by the worker, 40.1 per cent."

(1) Reference is to 1912 edition, same figures being presented on page 142 of the "Socialist Congressional Campaign Book for 1914."

Mr. Thompson's answer, coming as it does from the Socialist Party's Information Department, and quoting from the Campaign Book, must be taken as representing the Socialist Party's attitude. One-half of those who replied to the circular either expressed the same view or by referring the question to the Information Department tacitly did so.

A résumé of the personal expressions of some prominent members of the Socialist Party who replied will be interesting to many readers. These will be found in an appendix.

Two members of the Socialist Labor Party who read the Information Department's statement in *The Party Builder* wrote as follows:

Ralph Brown, Joplin, Mo.:

> "The Socialist Labor Party *does* hold that the worker is robbed of approximately four-fifths of his product (see pages 4 and 11 of the 'Preamble of the I. W. W.' published by the National Executive Committee of the S. L. P.)"

O. Beldner, Jamestown, N. Y.:

> "Although I am not one of those to whom you have addressed your letter questioning the statement that the wage-worker receives one-fifth of his products, I take the liberty to refer you to the statistics and extended argument made by the eminent Socialist, Mr. Daniel DeLeon, late editor of the *New York People*, on the subject. In his lecture 'The Preamble of the I. W. W.,' which I am sending you under separate cover, 'value added to materials' implies in a specific industry,—'gross product' comprises the added value of all the industries,—the new material has passed to the finished product. Therefore it is all the product of labor. The doctrine *all* socialists accept is 'Labor produces all Wealth.' Consequently all value of commodities is labor's product. Anything that labor receives less than the value of the product is appropriated by the capitalist class. The statement of C. D. Thompson in his open letter to you in 'The Party Builder' that only irresponsible socialists make the statement that the workers receive one-fifth of their product is contrary to the facts. He belongs to that class of socialists who do not understand economics as socialists do."

Mr. DeLeon's address referred to, "The Preamble of the Industrial Workers of the World," published by the New York Labor News Co. as a pamphlet, contains on page 11 these sentences:

> "The lie attempted to be given to the socialist regarding the outrageousness of the plunder, that he maintains the working class is subjected to by the capitalist class, rolls down the throat of its utterer. Even making allowance for the value of imported raw material to which the labor of other countries has given value, even making generous allowance for all that due allowance should be made for, the figures to which this poster testifies establish the conclusion that the pittance of one-fifth of its product is a liberal estimate of the share that the working class is allowed to retain."

In this variety of views (including those quoted in the appendix), very little will be found in common except the belief that the worker is exploited. In some cases the worker's share of the product is absurdly under-estimated. in some the proportion is not unfairly stated, and in some cases the percentage is described as immaterial. As to this latter view, let us attempt to ascertain the capitalist's share of the new wealth produced in manufacturing in 1909 according to two diverging views widely held by socialists. First, according to the view that the difference between the value of the gross product and the laborer's wages represents capital's share:

Annual Product (Gross, 1909)	$20,672,052,000
Wages	3,427,038,000
Remaining to Capital	$17,245,014,000

Second, according to the Campaign Handbook's view that the value of the products less the total of reported expenses is net profit:

Less Expenses Annual Product		$20,672,052,000
Materials	$12,142,791,000	
Miscellaneous	1,945,686,000	
Wages	3,427,038,000	
Salaries	938,575,000	18,454,090,000
Remaining to Capital		$2,217,962,000

The difference of over fifteen billions of dollars between these two estimates can hardly be considered as immaterial or unimportant.

That some socialists see clearly the absurdities involved in the claim that the worker receives only 20 per cent of the product is illustrated by a very interesting letter from Edward S. Smith, a socialist of Warren, Ohio, who did not receive the circular but saw it in *The Party Builder*. After saying that he had been interested in the question for twelve years or ever since he became a socialist, but that it had always seemed to him unwarranted, and that he had never seen any adequate evidence in support of it, Mr. Smith proceeded to analyze the census figures for manufacturing as follows:

"The amount of net profit available for distribution as dividends is not stated, but can be calculated (as hereinafter set forth) from the given data. The part distributed as dividends is the only part that can be considered as capital's share in the industries considered. Some might claim that payments for insurance, rent, amortization, and a large share of payments for legal fees, heat, light, water, etc., should be assigned as part of capital share, and the claim has of course, some justification, and the division of all items included under miscellaneous expenses might be attempted in a more extended analysis, for the purpose of assigning the proper shares to labor and capital. For present purposes, however, it seems fair to eliminate that part of the problem by not assigning 'expenses' to either labor or capital, for it is not included in the net product of manufacturing industries, though it is, of course, included in the general social income. . . .

"The part reported as salaries is part of labor's share, for the work of superintendence, accounting, etc., as well as the work of chemists, draughtsmen, technically trained engineers (civil, mechanical and electrical), all of whom are usually paid in salaries, is a part of the work of production, and is admitted to be such even by socialists when they are considering the general subject of the evolution of industry; for they affirm with varying forms of expression, that the capitalist has ceased to function as manager; that he has become merely a receiver of dividends; that the managing is done by employees. Some of the socialists forget this, however, when they are seeking to figure out labor's share.

"The extremists also sometimes forget to deduct from the total value of products the amount paid for materials consumed or transformed into a new commodity. This seems to be due to lack of attention to the meaning of the item 'total value of products.' The form in which the census reports are compiled is not conducive to clearness on this point, and might well be amended by the Director of the Census in future reports. The source of the error may be neatly illustrated by a simple concrete case. Suppose there were four industries located side by side under separate ownership. First an iron ore mine which produces in a given period ore worth one million dollars, which is all sold to the second industry, a blast furnace, in which the ore is converted into two million dollars worth of pig iron. The pig iron is all purchased by industry number three, a rolling mill, where it is transformed into skelp iron worth three million dollars. The total product of the rolling mill is sold to the fourth industry, a tube mill, and worked into iron tubing having a value of four million dollars. Now along comes a census investigator and after getting the figures from the four industries makes the following report:

Value of Iron Ore Produced	$1,000,000
Value of Pig Iron Produced	2,000,000
Value of Skelp Iron Produced	3,000,000
Value of Iron Tubing Produced	4,000,000
Total Value of Product	$10,000,000

"We know that the report is misleading, inasmuch as the total product is simply four million dollars' worth of iron tubing. The true report would be:

Value of Iron Ore Produced	$1,000,000
Value Added at Blast Furnace	1,000,000
Value Added at Rolling Mill	1,000,000
Value Added at Tube Mill	1,000,000
Total Value of Product	$4,000,000

"The results that I have reached in my most recent calculation, based on the census summary, are as follows:

For 1904:	
Wages and Salaries	$3,185,000,000
Materials Used	8,500,000,000
Miscellaneous Expenses	1,453,000,000
Total Expenses	$13,138,000,000
Total Value of Products	$14,794,000,000
Total Expenses	13,138,000,000
Net Profit Available for Dividends	$1,656,000,000
Labor's Share was	$3,185,000,000
Capital's Share was	1,656,000,000

"Labor received in 1904 nearly twice as much as capital. Making a pro rata estimate on the above results, we have 65.7 per cent as labor's share and 34.3 per cent as capital's share.

For 1909:	
Cost of Material	$12,142,000,000
Wages and Salaries	4,365,000,000
Miscellaneous Expenses	1,746,000,000
Total Cost of Production	$18,253,000,000
Value of Products	$20,672,000,000
Cost of Production	18,253,000,000
Balance Available for Dividends	$2,419,000,000
Labor's Share	$4,365,000,000
Capital's Share	2,419,000,000

"On a pro rata basis, labor's share was 64.3 per cent and capital's share 35.7 per cent.

"It is interesting to note how closely the pro rata shares for

1909 agree with those for 1904, in spite of the greatly increased volume of business.

"It is easy to discover certain considerations that would have a tendency to assign a smaller percentage to labor than that reached in my calculation. These considerations are made the most of by socialist authors. As a sample of the kind of reasoning used I would cite the editorial in the *International Socialist Review* for July, 1914, page 55, 'A Billion Dollar Donation.' Note the statement:

> "'When the things made by the workers have passed through the hands of jobber and wholesaler and are tagged with the price in the retail stores where the workers spend their wages, the price has gone up from $1,467,961,803 to about two and a half billion dollars. So the real donation of the Massachusetts wage-earners during the year 1911 was over *a billion dollars*.'

"It is easy to detect the fallacy in this line of reasoning. The statement that the price has gone up to about two and a half billion dollars is unsupported by evidence and seems to be a mere assumption. But even if it were true, should the entire difference between factory price and retail price be considered the rightful share of the factory workers? If so, where would the funds come from to pay the transportation workers, teamsters, freight handlers, employees in wholesale and retail stores, and to pay all the various expenses involved in the process of distributing goods to the consumers, or in other words, the functions of commerce and transportation as distinguished from the functions of manufacturing?

"There are on the other hand certain considerations that would have a tendency to assign a larger percentage to labor than that derived in my calculation. For instance, in the manufacturing industries, the data for which form the basis of the calculation, technical processes have reached a high degree of efficiency on account of the marvelous development of machinery. In other lines of industry, as in agriculture, timber-cutting, fisheries, mining, or in general the extractive industries, labor is relatively less efficient on account of the inherent character of the processes involved. Yet labor in these fields is on the average just as highly paid as in manufacturing industries. To base results exclusively on manufacturing data is therefore misleading.

"Again, in estimating labor's share of the product, division of the proceeds should include all workers engaged in accessory occupations, which, though not a part of the manufacturing, are indispensable in the successive stages of the process of production and distribution of commodities. The census data include only the workers engaged in manufacturing operations. This gives an erroneous result. All consistent economists, whether socialist or non-socialist, hold that the process of production includes all acts of transportation and handling of commodities in warehouses and stores and up to the moment the goods are placed in the hands of the consumers. Any attempt to separate the processes of production from the processes of transportation, sale and delivery would lead to a dilemma at some point. Take for example the production of coal. The work of the miner in dislodging the coal, whether by pick or machine-drill, is only the first step in the production of coal. The elevation to the mouth of the mine, the screening, loading and hauling of cars, the unloading and delivery in coal wagons, are all processes of transportation. There is no change of form, only change of place. Could the miner logically maintain that the production of coal is complete when his own work is done? Could he rightfully claim the entire value of the coal at its retail price as his share of the product?

"The basic principle of socialism is that all wealth is produced by labor. If distribution were based on this principle, workers in all fields of activity would have their proportionate share of the product, and the increase of wages accruing to the factory workers would not be any greater proportionately than that of the dishwasher in a restaurant, if justice prevailed. But the workers in general might be surprised to find that their weekly pay, instead of being increased by 500 per cent would be increased by about 25 per cent. A far more important change would be found in the fact that volume of production would be unlimited, or limited only by the needs of the consumers. That would be a revolutionary change involving stupendous consequences. It would mean nothing less than the complete abolition of poverty."

This is the best short discussion of the question that has come to the attention of the committee and agrees with the committee's conclusions up to the point where the allowance for depreciation is taken up.

CHANGES IN THE RESPECTIVE SHARES

The difficult question remains: What changes have taken place in the proportionate return to capital and labor in the net earnings of industry? The difficulty lies in the lack of adequate early statistics on the subject. The method is at hand if the facts to be examined were available.

Modern census-taking originated in the United States. Our official statistics are more thorough than those of any other nation, and the provision in the law under which returns of manufactures were taken in the census of 1840, is described in the Britannica article on censuses as "novel." This pioneer work suffered from numerous errors and defects which caused radical modifications of scope and method in the census of 1850. The results of that census were fairly complete and tabulated with care and skill, yet the returns were in many respects defective.

The census reports of 1850, 1860 and 1870 point out some of the difficulties which attended the collection of manufacturing statistics. The returns were taken by the assistant United States marshals, and not until a specially selected staff was first appointed for the 1880 census were figures obtained that would command the confidence of the census superintendents themselves.

Furthermore, there have been changes in the basis on which figures were taken as modern industry developed and the need for specialized information became apparent. Thus miscellaneous expenses were not taken and salaried clerks and officials were not separately reported until 1890. The four previous censuses give figures for "hands employed" only, and sometimes clerical labor and superintendence was included among the employees reported, and sometimes omitted, as one census report states, "by courtesy." In addition, all census figures prior to 1900 included "hand and neighborhood industries" in the manufacturing census. This brought into the figures in 1900 more than 300,000 small establishments, and neighborhood industries such as the building trades. This entire group averaged less than two wage-earners per establishment.(1) In 1900 factories proper were separately reported also, for the first time, and the returns of 1900 and 1910, with the intervening manufacturing report published in 1905, give the first view in perspective of the modern factory system. The 1900 report (census year 1899) and the 1910 report (census year 1909) are the authorities which have been drawn upon hitherto in this study.

(1) Computed from Table 3, page 439, Abstract of Thirteenth Census (1910).

We have heretofore alluded to a speech made in June, 1914, by Vice-President Marshall at Wabash College and

Maine University, in which he repeated the error that labor received in wages only one-fifth of the value of the per capita product. Here are Mr. Marshall's words as quoted by the New York *Times*:

> "In 1850, the proportion of the annual wealth created in the country by the joint efforts of labor and capital was one-fourth to labor and three-fourths to capital. Sixty years later the proportion had changed to less than one-fifth to labor and more than four-fifths to capital. This disproportion, to my mind, has much to do with our present discontent." (2)

(2) See New York *Times* editorial, June 21, 1914.

Mr. Marshall has been guilty here of some loose-jointed thinking and reckless bookkeeping. Any man who has ever met a payroll could have told him he was wrong, and there must be half a million bookkeepers in the country who could have correctly interpreted for him the figures he assumes to have examined.

We have shown that the method necessary to arrive at these proportions is hopelessly unsound and our brief historical sketch shows that the census of 1910 was taken on a totally different basis from that of 1850. Mr. Marshall must be comparing manufacturing returns or he has nothing to compare. The two reports which he has selected are not comparable for these reasons:

1. The 1850 report classed hand and neighborhood trades as factories and the 1910 report covered only factories proper.

2. The 1850 report covered "Hands Employed" but did not make returns for salaried officials and clerks, these not being asked for until the 1890 census.

3. The 1850 and the four succeeding reports included in the product of factories the results of the labor of 20,000 to 100,000 owners of small establishments who drew no wages, relying for their support on the profit of the business. (1)

(1) On this point see page 381 of "Industry and Wealth," Ninth Census (1870).

It appears that the assistant marshals were very unwilling workers, at all events as census-takers, which is perhaps not unnatural, inasmuch as they were allowed only 15 cents for taking the returns of a factory, an operation which it was admitted sometimes required several visits. Some of the detailed complaints are amusing. One case is mentioned of an unusually persistent census-taker who had to make six trips to obtain the reports of one establishment in order to earn his fifteen cents. A reading of the early census reports throws much suspicion upon their completeness and exactness and such radical changes in method and scope have been necessary to make later censuses statistically valuable that it is almost hopeless to institute such comparisons as Mr. Marshall attempted.

With such limitations, however, as result from the differences between the census figures for different dates, they may be presented and compared as nearly as possible upon an even basis. Such a study will undoubtedly throw some light upon the ups and downs of wages and their causes. Up to 1889, inclusive, the figures relate to factories combined with hand and neighborhood industries, and for this period the figures may be compared directly. It will be noted that for this period we have no information in regard to employees other than wage-earners, and consequently in using averages we must be content with the average per wage-earner, while we recognize the limitations of such figures. For the period from 1849 to 1899, the facts which are needed for our study of changes, if any, in the relative position of capital and labor are given in the following table:

FACTORIES AND HAND AND NEIGHBORHOOD INDUSTRIES

Census	Average No. of Wage Earners	Financial Data (Millions of Dollars for First Section of Table)				Proportion of Wages to	
		Capital	Added Value	Wages	Miscellaneous Expenses	Added Value	Added Value less Misc. Expenses
Original figures (1):							
1849	957,059	$533.2	$464.0	$236.8	.....	51	..
1859	1,311,246	1,009.9	854.3	378.9	.....	44	..
1869	2,053,996	1,694.6	1,395.1	620.5	.....	45	..
1879	2,732,595	2,790.3	1,972.8	948.0	.....	48	..
1889	4,251,535	6,525.1	4,210.4	1,891.2	$631.2	45	53
1899	5,306,143	9,813.8	5,656.5	2,320.9	1,027.9	41	50
Per Wage-earner (2):							
1849	.....	$557	$485	$247	.....	51	..
1859	.....	770	651	289	.....	44	..
1869	.....	825	679	302	.....	44	..
1879	.....	1,021	722	347	.....	48	..
1889	.....	1,535	990	445	$148	45	52
1899	.....	1,850	1,066	438	193	41	50

(1) Figures are from Table 3, page 439, Abstract of 1910, except for miscellaneous expenses, which are from Table 155, page 300, Abstract of 1900. Percentages are based on figures as given here.

(2) Computed from original figures in tables above noted, not from abbreviated figures here given. Percentages are based on the figures per wage-earner.

Before considering the relative figures, attention may be called to the fact that each census marked a considerable progress over the preceding. It may, however, be noted that in the last decade, in the table from 1889–1899, the average number of wage-earners increased more rapidly than wage payments, and the average wage, therefore, fell slightly although at each preceding census there had been a considerable advance in this figure.

The only relationship which we can establish for this entire period is that between the payment for wages and the value added by manufacture. In estimating the significance of these figures, there are several factors which must be taken into account. The first is the relative accuracy of the different census enumerations, to which allusion has already been made. The second is whether the miscellaneous expenses of manufacturing have borne a constant relation to the product during the entire period. And the third is whether labor in the form of salaries has maintained such a constant relationship to wages.

Bearing these qualifications in mind, it would appear that the proportion of wages to Added Value has been fairly constant. In detail it may be noted that the apparent proportion was higher in 1849 than at any subsequent census. To this showing no particular significance can be attached. The census of 1850, from which these figures are derived, was the first which undertook to collect manufacturing statistics in a systematic manner. The burden of such labor on the assistant marshals charged with the enumeration was very considerable and the whole census so far as manu-

factures are concerned must be considered as experimental. It is not improbable that the description which was given to that census, namely, "hands employed" led the assistant marshals to believe that this applied not only to wage-earners or manual workers but to all employees without distinction as to function.

After 1849 a more regular sequence is observed. From 1859 to 1879 the proportion of wages to Added Value rises a few points until it reaches 48 per cent in 1879 and then falls to 41 per cent in 1899.

It has already been noted that this comparison is defective in that it makes no allowance for the miscellaneous expenses. This defect can be corrected only for the years 1889 and 1899. If the comparison is made between wage payment and what we have formerly designated as the net earnings of industry, it will be seen that this percentage in 1889 was between 52 and 53, and in 1899 was 50. It will be remembered that even as so corrected the figures do not represent the true value of labor cost to the net earnings of industry, since they do not take account of salaried employees, concerning whom information was available only in 1899.

With the year 1899 we enter on a new series of tables which relate to manufacturing, properly so called, and which exclude the figures for the hand and neighborhood industries, and we have for two dates—1899 and 1904—data which is entirely comparable with the figures for 1909 which were discussed in the early part of this report. These figures, which permit us to take into consideration not only the miscellaneous expenses but also the salaried employees and their salaries, permit a much closer approximation to a determination of the relative share of capital and labor in the joint product of industry. The important facts regarding employees for the last three manufacturing censuses are given in the following statement.

EMPLOYEES IN MANUFACTURING INDUSTRIES AND PAYMENTS FOR SERVICES

	1899	1904	1909
Persons Employed in Manufacture	5,076,883	5,987,939	7,405,313
Salaried Employees	364,120	549,356	790,267
Wage Earners	4,712,763	5,408,383	6,615,046
Services, Payments for	$2,389,132,000	$3,184,884,000	$4,365,613,000
Salaries	380,771,000	574,439,000	938,575,000
Wages	2,008,361,000	2,610,445,000	3,427,038,000

The figures here given are utilized in the following table which relates to factories only from 1899 to 1909:

FACTORIES ONLY, 1899–1909

	Totals (1) Millions of Dollars			Per Wage-Earner (2)			Per Employee (2)		
	1899	1904	1909	1899	1904	1909	1899	1904	1909
Capital	8,975.3	12,075.6	18,428.3	$1,904	$2,318	$2,786	$1,768	$2,117	$2,489
Added Value	4,434.1	4,938.7	8,529.3	1,025	1,151	1,289	952	1,051	1,152
Miscellaneous Expenses	905.4	1,458.2	1,945.7	192	266	294	178	243	263
Net Industry Earnings	3,925.7	4,480.5	6,583.6	833	885	995	774	808	889
Wages	2,008.4	2,610.4	3,427.0	426	477	518			
Proportion of Wages to Net Industry Earnings	51.1	58.9	52.1	51.1	53.8	52.1	471	532	590
Services—Salary	2,389.1	3,184.9	4,365.6				60.9	65.8	66.4
Per Cent of Net Industry Earnings	60.8	65.8	66.3						

(1) The original figures in these columns are abbreviated from Table 2, page 438, Abstract 1910; the percentages are computed on the figures here given.

(2) These figures are computed from the complete original figures in the table above referred to, percentages being based on the averages here given.

In this table the comparison between wages or the combined wages and salaries is not carried out with respect to Added Value, as we have already seen that such comparison contains possibilities of error. Computations are here made with the net industry earnings, which is equivalent to the difference between the Added Value and the miscellaneous expenses. It is to be noted that if this comparison be made with relation to wages only, the proportion attributable to wages is slightly higher in 1904 than in 1909, although at the latter date the proportion is superior to that found in 1889. If, on the other hand, the comparison be made on the basis of all employees it will be noted that the per cent of the net industry earnings which is attributable to labor in this larger sense is somewhat higher at each succeeding census. There is a growing trend towards diversification of function in manufacturing industry as shown by the heavy proportionate increases in the proportion of salary to wage earning employees. Efficiency is raised by this development and the distribution to wage-earners is being increased so that the more highly trained salaried employees are not a burden on the backs of the manual workers, but are pulling them along.

Dr. I. M. Rubinow, in "The Recent Trend of Real Wages," (*American Economic Review*, Dec. 1914), finds that "a much smaller share of the value reaches the wage-carner now than did twenty or thirty years ago" (page 817).

He is dealing with the purchasing power of wages as measured by the weighted index figures for food prices.

This committee has been dealing with nominal wages only, so that his finding, however valid, does not as yet contradict ours. Indeed, for the purpose of this report, the consideration of the purchasing power of the rewards of industry may be safely excluded, because all of the recipients are alike affected by whatever rise in prices may be proven.

Our comparison of the recorded variations in their nominal rewards seems to rebut Dr. Rubinow's sweeping conclusion, as above quoted. The percentage of wages to the value added in manufacture has been fairly constant for fifty years. The percentage of the wage-salary to the net product has risen rapidly from 1899 to 1909, while the relation of the wages of laborers to the net product has also risen but in less degree.

But the amount of capital engaged per wage-earner has been steadily and rapidly rising for sixty years, and the amount of capital per employee has shown a marked rise in the last ten years. Such a relative increase in capital requires a very marked increase in productivity to prevent interest and profit from falling. We seem to have shown that the percentage of the net product remaining to the capitalist has been either stationary or shrinking, and with so many additional units of capital per worker reported at each successive census, the relative product remaining to each unit of capital must necessarily decline.

As a matter of fact, this is exactly what has happened unless the history of interest rates in this country needs to be rewritten. Interest has notoriously fallen, and the margin of profit is shrinking. These considerations in themselves are sufficient to rebut Dr. Rubinow's too-sweeping conclusion.

It is probable that the weighted averages of food prices used by Dr. Rubinow are not a final test of the purchasing power of wages. Admitting that the worker is spending a larger proportion of his income for food now than in the past, he may still be actually more prosperous, and relatively more prosperous. If cheap food alone be the test, the savage with his grove of bread-fruit trees stands at the summit of mankind. He obtains his food for the minimum outlay of labor.

It is sometimes charged that inordinate salaries are paid to disguise high profits, but such cases are comparatively rare and their influence upon the whole manufacturing industry must be very slight. There are no factory figures that show relative salaries, but the railroad statistics for 1909 show that general officers absorbed 1.7 per cent of the total railroad payroll in that year while the carpenters in the railway employ drew 4.4 per cent of the total payroll. Carpenters are not much in evidence in the railroad industry, yet their modest earnings hit the railroad's treasury nearly three times as hard as the princely salaries of the higher officials.(1)

(1) "Statistics of Railways in the United States for 1909" (Interstate Commerce Commission), page 46, gives these figures:

Yearly Compensation of all Railroad Employees	$998,323,694
Salaries of General Officers	16,574,587
Wages of Carpenters	43,420,646

It would be interesting to ascertain what proportion of their net product our good business generals receive in salaries and profits. It would be absurdly small, for there is hardly any limit to be set on the value of the right man to an enterprise of which he is the directing genius. What would Henry Ford have been worth, for instance, as manager of an automobile factory during the last fifteen years? Judging by the result of his work, his employees, if they had owned the business, should have been glad to contribute $100 each out of their net product to keep him at the head of the organization. On the basis of 25,000 employees, this would provide him with the very comfortable salary of $2,500,000 a year. High salaries, however, are not a burden upon either industry or labor for the very good reason that there are so few of them.

CAPITAL EARNINGS AND CAPITAL INVESTMENT.

Up to this point our discussion has concerned only the aggregate product of manufactures. We have attempted to show as far as ascertainable the share in this product, at the successive censuses, which has been given to labor and that which has been absorbed by capital. No consideration has thus far been given to the amount of capital which has been concerned in this production or the proportion which the share of capital bears to its amount.

It will be noticed that in the comparisons of census figures we have constantly been including for each census the amount of capital employed per wage-earner or per employee. This was done to emphasize the great increase in capital required under the increasing elaboration of equipment. There are no figures for miscellaneous expenses for the earlier censuses, so it is necessary to take Added Value instead of net product to make this comparison for two manufacturing reports fifty years apart:

	1859(1)	1909
Added Value per Wage-Earner	$651	$1,289
Average Wage	289	518
Capital Employed per Wage-Earner	770	2,786

(1) Computed from Table 3, page 439, Abstract of the Thirteenth Census (1910).

The basic change here is in capital. It is the use of 3½ units of capital in 1909 to one in 1859, with the accompanying improvement in plant, process and organization, that has raised wages $229 a year. The wage-earner may properly be said to be employing 3½ helpers in 1909 where he employed one in 1859. The command and use of capital are obtained by paying its wages (i.e., earning its normal interest) and guaranteeing its upkeep (i.e., providing against depreciation). The cost of the upkeep of capital has probably not changed in fifty years. Our reasons for figuring average depreciation on all manufacturing capital at five per cent in 1909 would have been just as valid in 1859. The wages of capital have gone down. Eight per cent was the usual legal interest in 1859 as against 6 per cent now. Capital received in 1859 for interest and depreciation on $770 of capital, $100.10. In 1909, capital received for interest and depreciation on $2,786 of capital, $306.46. The laborer had 3½ units of help in place of one. The cost of that help was an additional $206.36 and the result was an increase of $229 in the laborer's pay. There are no census figures to prove that the customary earnings of capital in the industries which we have been examining do not exceed six per cent. The proof lies in the fact that although six per cent is the usual legal rate of interest, most of the loanable capital of the country brings five. A manufacturing or

railroad stock that pays six per cent consistently will sell at or above par on the average. Its five per cent first mortgage bonds will sell at par on the average. A bidder for capital, whose credit could not be questioned, the federal government for instance, could borrow all the available capital in the country, if not in the world, at considerably less than six per cent.

While it is not possible to demonstrate from the census figures with mathematical accuracy that the return to capital as interest and profits has diminished in the past fifty years, it is none the less possible with these figures to present very convincing evidence that such is the fact. Had we for the earlier censuses as ample material as for those of 1899 and subsequent years, there would be no difficulty in segregating with comparative ease the approximate share of interest and profits, and comparing this with the amount of capital invested. It will be remembered that to estimate this share we subtracted successively from the value added by manufacture the following elements: (1) wages; (2) salaries; (3) miscellaneous expenses; (4) an allowance for depreciation. Of these four elements the first only is given for each of the census enumerations; but the fourth can be estimated for all of them. The second item, of salaries, is definitely given for 1899 and subsequent censuses, but for the earlier years it can not be definitely ascertained whether salaries, especially those of a clerical nature, have or have not been included.

If from the value added by manufactures we deduct at each census the figures given and estimated for wages and for depreciation, we have a remainder which comprises at least two elements—interest and profits on the one hand, and miscellaneous expenses on the other—and which does in some cases, and may in others, comprise a third element of payments for salaries. Disregarding the census of 1849 when, as we have already seen, the figures cannot claim the same degree of accuracy as at later dates, such a calculation is made in the following table:

RELATION OF CAPITAL TO INDUSTRY EARNINGS
(All Amounts Expressed in Millions of Dollars)

Census Year	Capital	Value Added by Manufacture	Wages Paid	Depreciation (5% of Capital)	Value Added Less Wages and Depreciation*	
					Amount	Per cent of Capital
	Factories and Neighborhood Industries					
1859	1,010	854	379	50	425	42 1
1869	1,605	1,395	620	85	690	40 7
1879	2,790	1,973	948	140	885	31 7
1889	6,525	4,210	1,891	326	1,993	30 5
1899	9,814	5,657	2,321	491	3,245	33.1
	Factories Only					
1899	8,975	4,831	2,008	449	2,374	26 5
1904	12,676	6,294	2,610	634	3,048	23 9
1909	18,428	8,529	3,427	921	4,181	22 7

* This remainder is composed of the following elements:
1. Miscellaneous expenses.
2. Salaries so far as they are not included under wages, as was probably the case for earlier censuses.
3. Interest and profits on capital.

It must of course be admitted that the percentage in the last column of this table is somewhat vague and indefinite. The figures simply mean that as compared with the aggregate capital the total of these three elements has decreased. This does not imply that interest and profits have increased, unless it could be assumed that miscellaneous expenses and salaries had decreased in an even greater proportion than the decrease in the general average shown in the table. Whether such an assumption is or is not tenable can, however, fortunately be tested by actual figures or the statistics of factories from 1899 or 1909. At these three censuses we know the amount of miscellaneous expenses and we find that the amounts paid for miscellaneous expenses represent the following proportions of the capital invested: 1899, 10.1 per cent; 1904, 11.5 per cent; 1909, 10.5 per cent. In view of the increasing complexity of manufacturing industries it is in the highest degree improbable that at earlier censuses the amounts paid for miscellaneous expenses represented a higher proportion of the capital invested. In like manner we know for the last three censuses the actual amount paid for salaries and we find that such amounts represent the following proportions of the capital invested: 1899, 4.2 per cent; 1904, 4.5 per cent; 1909, 5.2 per cent. Within this shorter period the payment of salaries appears to be assuming larger proportions, and it is reasonable to assume from our knowledge of the conditions of industry that payments for salaries formed smaller rather than larger proportions of the capital invested in the earlier censuses than in the later ones.

Our analysis of the figures shows that in the general decline of this composite group, as shown by the table, the evidence points not to a decrease of the proportions to be assigned to the elements, miscellaneous expenses and wages, but rather to an increase of those elements. Hence it follows that interest and profits must have declined at least as much as the composite group, and probably more. If for the sake of argument we assume that the two elements, miscellaneous expenses and salaries, have formed continuously the same proportion of the aggregate capital, and that this has been approximately 15 per cent, we should have to account for interest and profits in 1859 of 27.1 per cent and in 1909 of 7.7 per cent. That so marked a decline has actually taken place in the profits of manufacture cannot seriously be contended. It must be remembered that the earlier censuses contained a much larger proportion of enterprises in which the proprietor himself took an active share in the manual labor. In such enterprises the aggregate return to the proprietor appears as profit, while in fact the major part of it should in any correct analysis be assigned to wages. Even after allowing for this change in the organization of industry, it seems not unlikely that there has been a very considerable decrease in the proportionate return to capital invested in manufacturing industries. For the last three censuses we can, as already stated, eliminate the miscellaneous expenses and salaries, and obtain a fairly approximate estimate of the return which has come to capital in the form of profits and interest. This return in 1889 appears to have been equivalent to 12.2 per cent of the capital invested; in 1904 to 7.9 per cent and in 1909 to 7.0 per cent. With the conclusive evidence of

diminishing profits and interest for these three dates, the probability of a still greater decline as compared with an earlier period is greatly enhanced.

THE POSSIBLE VALUE OF ADEQUATE STATISTICS IN SOLVING LABOR PROBLEMS.

Could not such studies as we have been making be of great value if honestly and fearlessly applied to industries in which large or violent labor disturbances are threatened? The United Mine Workers of Illinois, at the time of a big strike some few years ago, prepared and published a statement of receipts by the coal company and the miner respectively, which purported to show that the company's income was in the neighborhood of $30 per day per man, while the average wage was about $1.40 per day. The retail price of the coal was, of course, the basis of this remarkable showing, and the mistake was perhaps honestly made by some union man who forgot that the coal company has to meet its expenses out of the price of coal at the mine. Consider the effect on striking miners of assurance from their union that they receive in wages less than one-twentieth of the value of their product. The mining census tells the story in terms of hundreds of millions of dollars. The relations of such figures are not readily grasped, but if the coal miners of Illinois had been informed by some trustworthy authority that 68 per cent of the mine price of bituminous coal in 1909 went for wages at the mine, and 74 per cent of it went for wages and salaries, that the coal they had dug in 1909 sold at a price equalling $725 per worker at the mine, and that expenses were $115 a worker per annum, they would have known whether they could get wages of $700 a man a year or whether they would have to be satisfied with less(1.)

(1) Abstract of Thirteenth Census (1910), page 562.

The effect of accurate and properly digested information in forming public opinion has never been tried as a means of preventing labor disputes. After the militia has been called out, after blood has been spilled, a committee is appointed to investigate. It sits for weeks. It has to consider charges and countercharges of brutality, oppression, arson, dynamiting and murder. Contradictory evidence fills the newspapers. Incidentally, the real matter of contention is touched upon. Both sides assemble hand-picked statistics as to wages, hours, cost of living and conditions of employment, and summon scores of witnesses who give hopelessly contradictory testimony as to the wages that have been paid. The public, and perhaps the investigating commission also, becomes confused on the issue, if not weary of the debate. Some sort of a working compromise is patched up, and the strike ends, but nothing is settled. Suppose the state or the federal government despatched a company of statisticians, armed only with authority and sharp lead pencils, to the scene of a threatened strike at the first hint of trouble, and commanded both sides to preserve the *status quo* until the wages paid and the ability of the industry to pay more, or the urgent necessity of its paying less, were accurately ascertained, would not a great many strikes and lockouts be patently unnecessary?

How quickly public opinion, which supports and sometimes finances strikes and lockouts, will focus when exact information is available is shown by what happened in a New Jersey city some years ago within the knowledge of a member of this committee. Five hundred girl handkerchief makers went on strike for a new piece scale of wages, which the factory owners declared was unreasonable. The strikers were mainly Polish, their English was rudimentary, their attitude toward inquirers was suspicious, and the local newspaper reporters could not get a clear understanding of their grievances. The factory superintendent could talk English and told an apparently good story. He produced English-speaking girls who, he said, were fairly representative of the employees, and had them tell the reporters what wages they were getting. These girls said their weekly pay ran from eight to nine dollars a week, and in some cases as high as ten and twelve.

The local Polish Catholic priest read in the newspapers that the strikers had been earning $8 to $10 a week. The strikers had a week's pay in the company's hands when the break occurred. The priest told the girls to save their pay envelopes and bring them to him. Soon after pay day he turned up at the local newspaper offices with over four hundred pay envelopes, all of one week's date, with the wages computed by the pay clerk on the outside of each envelope. So many dozen handkerchiefs made and henstitched at a very few cents a dozen, so much deducted for spoiled work, so much for broken needles, etc. It was a heart-breaking showing. The net wages ran as low as $1.67 a week, and of the entire batch of envelopes only a score showed earnings of over $4 a week. A handful of girls, who had become very expert by long experience, had earned $6 to $7 a week by unremitting application and dearly-bought skill. Inquiry showed that the English-speaking girls who were earning from $8 to $12 a week were the forewomen.

The story was printed in the local newspapers. It consisted mainly of a transcript of the figures on the fronts of the pay envelopes. One New York newspaper printed it practically in full. It was copied here and there throughout the country. Meanwhile, the strike, having no funds, no organization and no backing, began to disintegrate. In a week from the start, one-third of the girls were back in the mill and the strike was practically broken. Suddenly the superintendent sent for the strike leaders, surrendered without parley, and the apparently defeated strikers went back to work on their own terms. It was the printing of the record of the four hundred pay envelopes that did it. The company had begun to hear by mail and wire from its customers,—from the jobbers and department stores that marketed its product. The general tenor of the messages was this: "We are paying you so much a dozen for such a grade of handkerchief and we figure that your material costs you so much a dozen. If you can't pay your girls more than $1.67 a week, you may cancel our order." The manufacturers were absolutely unable to resist the pressure of this small but well-informed section of public opinion. There has never been a strike in that factory since, although small outbreaks had been practically continuous for the previous year.

SOME GENERAL CONCLUSIONS.

To sum up, we have ascertained as nearly as possible the average returns to labor and capital from industry and discovered that labor's share is larger and capital's share smaller than is supposed by many. This popular misapprehension is due to a hasty and unsound method of ascertaining the product of industry. The division between labor and capital in different branches of industry examined is reasonably uniform and not upon its face unfair when due allowance is made for the upkeep of capital. While the average annual manufacturing wage has increased from $247 to $518 in sixty years, the normal rate of interest has decreased one-fourth. The increase in wages has come out of a larger net product, which has been made possible by the use of a much larger amount of capital per worker. Wages and salaries are both increasing and the increase was especially large from 1899 to 1909. Wages and salaries tend to increase faster than wages alone. While early statistics are unsatisfactory on the point, there is no evidence that the worker's share of the product is lessening. In fact, during ten years covered by the three manufacturing censuses which are exactly comparable, the trend of the percentages has been distinctly upward both for wages and for wage-salaries. If the average wage and the average wage-salary are discouragingly small, it is because the average product and the average net earnings of the industry per worker are discouragingly small.

Capital and labor both are working on narrow margins. There is all the more reason for a thorough, mutual understanding of the situation so that they shall not consume the reserve product in industrial war while women and children suffer for lack of bread. There is all the more reason why the small portion of our national wealth, which is conspicuously wasted, should be devoted to productive industry, and why distribution of product should be conducted more and more on lines of even-handed justice.

All our capital, our wealth of invention, our energy, industry and organization have so far enabled us to produce little more than $1,000 per worker in the most highly developed industries which are most effective in producing wealth. It is not improbable that, could the entire field of production, agriculture as well as manufactures, and all enterprises, great and small, be compressed into the tables, this average would be considerably diminished.

All that the people of the country need, and want, and hope to do, must for the present be paid out of these relatively small returns. If in the future an increased output per worker should result from betterments in the application of capital or labor, or both, to industry, experience seems to show that the worker would secure the major part of such increase. But whatever the sum to be divided is or may be, to see that this income is fairly apportioned without being lessened by high charges, negligence, idleness or waste by employer or wage-earner, or dissipated in labor wars, is the proper function of our leaders in business, in labor organizations and in politics.

X

APPENDIX.

The following abstracts of letters received in response to the circular sent out to prominent members of the Socialist Party show that there is a variety of opinion among socialists as to one of the questions treated in this report:

Robert Rives LaMonte:

"The most important point in my own mind is not the precise fraction, but the indisputable fact that as machinery improves and production increases, the fraction of total product received by labor grows continuously smaller even though wages rise. This is what makes capitalism impossible."

Max Eastman, editor of *The Masses:*

"Personally, I have no statistical information as to the proportion of his product which the American workingman received. It happens, too, that I have never seen the statement you allude to that he receives only 20 per cent of his product. The thing your letter makes me most desire to say is that I hope if you secure an accurately grounded opinion upon this subject you will let me have it and also the grounds of it. The thing that makes it so difficult for Socialists to get statistical determinations of fact is that all the census-taking and all the investigation of this country is in the hands of people trained, if they are trained at all, in the economics of capitalism. It does not seem to me that what you call the 'iniquity of present social conditions' or the fact that we live under a class rule, requires statistical proof."

The Appeal to Reason:

"We have no information such as you request. We suggest that you write Carl D. Thompson, Information Department, Socialist Party. You might also write Algernon Lee and W. J. Ghent."

Walter Lippmann:

"I do not believe that in modern industry it is possible to estimate what the product of a man's labor is. And consequently I do not believe we can place any great reliance either in the statement of conservatives that men now get the full product of their labor, or on the statement of some socialists that he receives only 20 per cent. We do not know what the product of a man's labor is in complex industry. The case for socialism does not rest upon the proof that exploitation is so and so much. It rests on the belief that large classes of property now in private hands yield wealth to their owners for which society receives no adequate return. That yield may be regarded as the amount to which the useful members of society are exploited. We know that the amount is large, large enough to justify cutting into it for many years to come, but just how large it is, no man can prove by the statistics now in existence. But such an investigation could be made and ought to be."

A. M. Simons, of *The Milwaukee Leader:*

"I think that 20 per cent statement is some 'Appeal to Reason science' originally. It has been disavowed repeatedly as anything but accurate. At the same time it is not difficult to show that the amount of exploitation reaches even more than that in most cases. The capitalist does not get the remainder, however, as much of it is wasted."

Frank Bohn:

"The question you ask is quickly answered. The statement that wages in the U. S. amount to only 20 per cent of the worker's product is an exaggeration which does no honor to the intelligence of those who make it. The error occurred in the following manner. In the census reports of 1900 the average report of each worker (I quote from memory) is given as about $2,450. Wages (again I am relying on memory) is given as $437. So some socialists have jumped to the conclusion that wages were

only about 14 per cent of the worker's product. The 17 per cent guess (sometimes 20 per cent) is a 'left-over' from the census of 1890, the same mistake being made then as in 1900. What these persons failed to do was to deduct from the average gross product the cost of raw materials. Thus, let us suppose that a tree is cut and taken to a sawmill. The sawmill owner purchases it and hence in his product, —lumber,— he includes the value of the raw timber. The furniture maker, likewise, includes the value of the raw material, —lumber,— in his product, —furniture,— and of course in the complete returns the value of the log is given three times, the value of the lumber twice. Instead of $2,450 as the product of each worker in manufactures, the total should be $1,280. I have just calculated it from the census of 1910 and find it $1,290. Of course it must be remembered that this concerns manufactures alone. For most other industries it is practically impossible to deduce even valuable conjectures."

William R. Gaylord:

"If the point of your question is to show that the workingman receives 50 per cent rather than 20 per cent of his product, I don't think the difference worth struggling over. From the exacting standpoint of the statistician, there is no basis, so far as I know, for any accurate statement as to the percentage of exploitation of American laborers. My own practice for a number of years has been to assume for the purpose of certain arguments that labor received one-half the value of its products. I did not regard the fact that the percentage used by different speakers and writers varies somewhat as of so much importance as the fact that exploitation itself exists. Of course if the coming of socialism depends upon an absolute accurate statement of the rate of exploitation of labor, the Republican and Democratic parties may be depended upon to see that the census department is so organized and administered as to prevent the making of any such accurate statements."

George R. Lunn:

"There is no doubt but what some socialists would make such statements, and without foundation in facts."

Austin Lewis:

"I have no special knowledge of the matter of the ratio of what is frequently called surplus value to product. The statement that a workingman received only 20 per cent of his product, however, seems absurd on the face of it."

J. G. Phelps Stokes:

"I am confident that there is no adequate foundation for that statement. The mistake has evidently arisen from confusion in the minds of many between the ratio of wages to gross product and the ratio of wages to net product. Considerable study that I have given to this matter, at various times, satisfies me that the ratio of the average salary-wage to the average new value created by the worker in American manufacturing industries is approximately 1 to 2, and not 1 to 5. I do not recall having ever heard or seen the alleged 1 to 5 ratio maintained except in statements of 'soap-box' speakers, and others whose zeal at times exceeds their information on this particular subject. I should be greatly surprised to find that you had found any such erroneous statement in the writing or public utterance of any socialist having the confidence of the National Socialist Party, though local speakers often fall into the error."

John Spargo:

"Except in a few popular pamphlets, written for the most part by honest but ill-trained writers, I have not come across the specific statement to which you call my attention. I think you will not find anything like it in what I may call the authoritative literature of socialism. So far as I know, nothing like a satisfying method of calculating the exact amount of exploitation has ever been devised. There is little likelihood that it is overstated by the exponents of socialism. Take the case of Mr. Ford, the automobile man, for example. He announced that his wages bill was to be just doubled, you remember. Well, if the workers had, prior to the increase, received as much as 50 per cent of the value they produced, doubling the wage bill would have given them 100 per cent. That is obvious. But no, we were told that such an increase would not even cut the profits in halves. And be it observed, Mr. Ford's 'salary' for his work of superintendence is paid before profits are calculated, and is included in the category of wages and salaries. It would seem, then, that in the Ford case the workers could not have received more than 25 per cent at the outside, probably a good deal less. And Mr. Ford believes that what his firm has done can be done by every great industrial corporation in the country."

Morris Hillquit:

"I do not recall any authoritative socialist assertion, still less 'constantly recurring assertions' that the American workingmen received in wages 20 per cent of their product. The exact proportion of the product which goes to the workers and the portion which goes to the capitalists has to my knowledge never been definitely established, and the socialists do not base their argument upon the assumption of an established and definite rate of exploitation. For illustration, it is frequently assumed in works on socialist economics that the worker receives on the average two-thirds of his product, while the capitalist receives one-third, and this assumption is probably nearer the truth than the statement that the worker receives only 20 per cent of his product."

Mary E. Marcy:

"I shall to-day have sent to you a copy of my 'Why Catholic Workers Should be Socialists.' If you will read the first two or three chapters in this you will find a socialist statement of how the four-fifths retained by the capitalist is divided among the capitalist class. You will note that we do not claim it is retained by the original employer, for instance, by the manufacturer."

W. J. Ghent:

"I have no doubt that the statement has been made that labor receives only about one-fifth of the value of its product. This statement is not made, however, by any well-informed socialist. It is an unjust imputation, moreover, to say that while the best informed socialists do not believe it, they do not attempt to stop its use. On the contrary, socialists who have studied the figures of production and have arrived at a very different conclusion, have repeatedly published their computations to the world."

Mr. Ghent continues by referring to the *National Socialist Campaign Handbook* figures already received.

Charles H. Kerr:

"Our claim is that for an average wage of $2.00 the American laborer produces goods that sell *at retail* for $10.00; in other words, that when he spends his wages he can buy only a fifth of what he produced. From the 26th Annual Report of Statistics of Manufacturers of Mass., page 40, it appears that 3,375 Boston factories in the year 1911 used materials to the amount of $294,046,863, paid wages to the amount of $95,871, 777 and sold the product for $502,527,771. So 'on the face of the returns' the laborers added a value of $208,481,108, which would indicate that they received about 46 per cent of what they produced, according to the official statisticians of Massachusetts. But observe particularly that the value of the product is figured on the amount received at the factory door. What the wage-earners really pay for these same commodities when bought for consumption is about double the factory price; this estimate you can readily verify for yourself. So the Boston workers, for their wages of less than a hundred million, really added about seven hundred million dollars to the selling price of the mate-

rials they worked on. I am not saying the direct employers make this vast sum. Much of it was wasted in ways that you will understand as well as I."

George E. Roewer, Jr., a National Committeeman from Massachusetts:

"Not only socialists, but also bourgeois politicians are making similar statements. The other day Vice-President Marshall said before a graduating class at Crawfordsville, Indiana (see the *Milwaukee Leader*, June 19, 1914) that 'labor gets less than one-fifth of the wealth created to-day and that capital gets more than four-fifths.'"

John P. Burke, New Hampshire State Secretary:

"I do not believe that well informed socialists make the statement that the workingman only receives 20 per cent of his product. I heard Victor Berger speak a few years ago, and he said that the workers produced on an average something like $1,200 worth of wealth and received an average of $582. Mr. Henry Ford, the automobile manufacturer, has given us a practical demonstration of the possibilities of increased returns to the workers. He has doubled wages and yet his concern still makes a profit of $12,500,000 a year. Mr. Allan Benson, in an article in the April issue of *Pearson's Magazine*, shows how every great trust in this country is making more money than is the Ford industry. 'Ford wages,' says Mr. Benson, 'can be paid by any great corporation that is willing to retire its watered stock and return to the employees one-half or more of the profits.' The Socialist Party is circulating this particular article in a little pamphlet entitled 'The Bombshell That Henry Ford Fired.' I am enclosing a copy."

Joseph Warnock, Michigan State Secretary:

"To my mind it is not important whether the average laborer produces $500 or $2,000 more value than he receives annually, as the fact that he produces a surplus that goes to a parasite would be enough to condemn and eventually put an end to such a system. However, I believe that the statement that the laborers receive on an average not over 20 per cent of the retail value of their product is a conservative one."

J. Raphaelson, Kentucky State Secretary:

"The statement used by socialists that the American workingman receives only about 20 per cent of what he produces is, to my knowledge, used as an approximate figure only. I believe it to be a fair statement, although very difficult to prove mathematically, because of the complexity of our industrial system."

W. F. Dietz, Louisiana State Secretary:

"From the study I have made of this question and the information obtained, I am of the opinion that labor as a whole does not create five times the value of what is received in wages, but this ratio only applies to the best developed industries where labor is employed on a large scale with the best machinery, in which case, I am convinced, that the figures are reasonable. If this be true then, and since the socialist program provides for labor being so directed, we are correct in promising that the income of labor be increased five times, or the hours of labor reduced, under a socialist regime. I am enclosing card showing argument used by Prof. W. F. Reis on this point and a leaflet by Allan L. Benson on the same matter."

William Eberhard, South Carolina State Secretary:

"It is true that this assertion is often made on the soap box and in such papers as 'The Appeal To Reason,' and I know of a number of well-informed socialists who do not approve of this practice, not because they don't believe in it, but because they believe that such an assertion should not be made without proper explanation, and a soap box talk or short newspaper paragraph is hardly satisfactory in this respect."

Charles Edward Russell:

"I should say that while it has been estimated that the American workingman receives only 20 per cent of the value of his product this estimate is only approximate and must necessarily be so. It is impossible to reach exact figures upon this matter for the reason that the data for figuring would vary widely with different statisticians. To take but one illustration, the value of a man's product may be estimated according to its factory value or it may be estimated at its price to the consumer, which would be much greater. The essential fact, however, upon which socialists base their assertion that labor is robbed of a great share of its own product remains the same whether the amount of this robbery be four-fifths, three-fourths or two-thirds. The exploitation differs only in degree, not in kind."

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